DUROSTONE®

durotop ks

Surface hardener premix of increased abrasion resistance

DUROTOP KS is an increased corundum contained, ready-to-use dry shake hardener.

It is a combination of factory premixed, assorted hardening particles, corundum, cement binder and additives. Suitable for increasing the abrasion resistance of freshly laid monolithic concrete floors and cement based screeds.

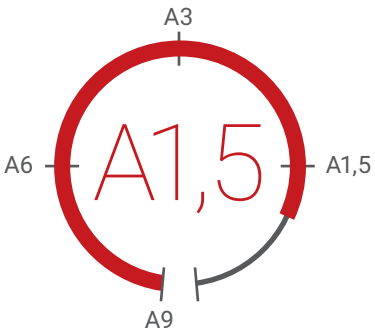
AREAS OF USE

- floors with extreme requisition requirements
- smelteries, metal processing plants
- floors exposed to tracked vehicle traffic, barracks
- logistic centers, high-bay warehouses
- especially heavy-duty plants

PRIMARY FEATURES

- exceptional abrasion resistance
- impact resistance
- oil resistant but not stain resistant
- dust free
- easy to clean
- wide range of colors

BÖHME ABRASION RESISTANCE



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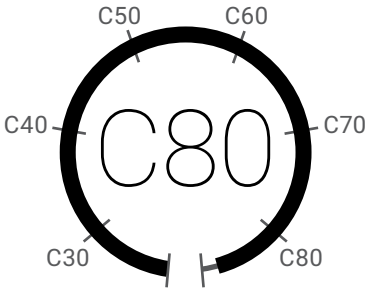
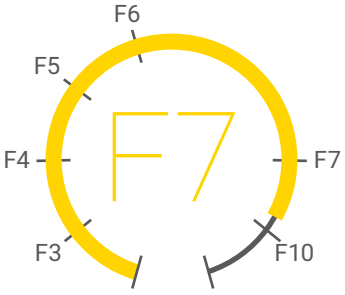


FLEXURAL STRENGTH



DUROSTONE KFT. Hungary – 2038 Sóskút, Ipari Park 3508/23 hrsz.
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product description

durotop ks

DUROTOP is designed to construct outdoor and indoor floors, which are prone to extreme heavy duty utilization. Its use significantly increases the treated floor's lifespan. Available in 15 different colors.
DUROTOP KS is available in standard and in PLUS variations.

MAIN FEATURES

- Very hard, abrasion resistant surface
- Easy to clean and maintain
- Dust free
- Oil resistant, but oils can cause stains on the surface
- Non-slippery
- Homogeneous, shiny surface
- Can be used in food processing plants
- Non flammable

TECHNICAL DETAILS

- Abrasion classification: A1,5
- Compressive strength: ≥80 N/mm² after 28 days
- Flexural strength: ≥9 N/mm² after 28 days
- Hardness by MOHS scale: 8-9

INSTALLATION

The installation of DUROTOP KS is carried out simultaneously with the laying of the new concrete surface, which assures the perfect binding between the concrete and the dry shake hardener. Material consumption highly depends on the color. For further information refer to our Design guide.

MANUAL SPREADING (DRY–TO–WET)

The fresh, step resistant concrete should be pre-polished to ensure that moisture comes up to the surface. Then the specified amount of DUROTOP KS hardener should be spread evenly onto the surface in two to three layers. The spreading process can be carried out by either a manual spreading cart or by a shovel.

USING A SPREADER MACHINE (DRY–TO–WET)

After levelling the surface with a Laser Screed, DUROTOP KS should be spread directly on to the fresh concrete in one or two layers.

SLURRY APPLICATION (WET–TO–WET)

For slurry application, only DUROTOP KS PLUS version can be used. DUROTOP KS PLUS should be blended with water on the jobsite (4 liters/sack) and be spread on the step resistant floor after pre-polishing process.

MATERIAL REQUIREMENTS

Manual spreading:	4-6 kg/m²	2-3mm
Machine spreading:	4-10 kg/m²	2-5mm
Slurry application:	10-18 kg/m²	5-9mm

DUROTOP KS FLOOR FINISHING PROCESS

This part of the DUROTOP KS installation process is done by either hand trowels and/or by double disc power trowel machines until the surface becomes smooth, hard and shiny. The quality of the floor can only be ensured, if the installation instructions are followed properly. (Please read our detailed Installation guide.)

CURING – AFTER CARE

DUROTOP KS floors need to be protected against quick evaporation that may result in cracking. DUROCURING and DUROSEAL are curing agents that can be used for this purpose.

JOINTS

To make saw cuts, we suggest to use DUROCUT blades. Until a final close of saw cuts, DUROPLAST PVC joint profile strips will protect the edges of saw cuts. DUROFLEX PU joint sealant and DUROFOAM rolls are for permanent joint filling.

FIRST TIME USE AND MAINTENANCE

Before the use of the new floor can begin, the following drying periods and precautions must be obeyed:
Pedestrian traffic: 2 days.
Light traffic: 7 days.
Intended normal traffic: 28 days.
For cleaning purposes, use only Ph neutral detergents. (Please, refer to our Maintenance guide.)
In case of colored floors maintenance is very important.
We suggest to treat the floor with LIQUIDUR product.

PACKAGING

In bags of 25 kg on 1200 kg capacity pallets.

STORAGE

The shelf life of DUROTOP KS is 12 months, when stored in dry and non-frost, cool conditions.

You can find detailed information about PLUS version: Design guide.

DUROSTONE®

durotop

Surface hardener premix of high abrasion resistance

DUROTOP is a corundum contained, ready-to-use dry shake hardener.

It is a combination of factory premixed, assorted hardening particles, corundum, cement binder and additives. Suitable for increasing the abrasion resistance of freshly laid monolithic concrete floors and cement based screeds.

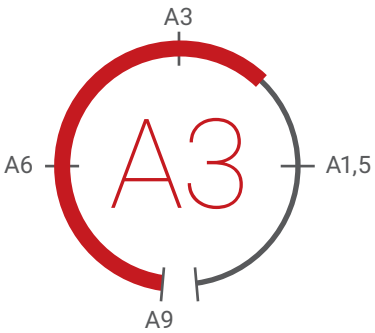
AREAS OF USE

- logistics centers, high-bay warehouses
- heavy duty manufacturing plant
- cash & carry stores, DIY stores
- showrooms

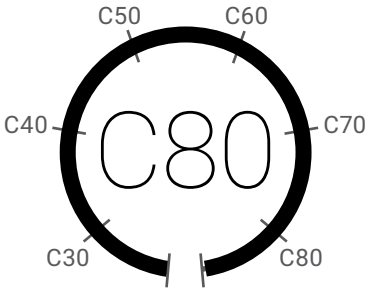
PRIMARY FEATURES

- excellent abrasion resistance
- impact resistance
- oil resistant but not stain resistant
- dust free
- easy to clean
- wide range of colors

BÖHME ABRASION RESISTANCE



COMPRESSIVE STRENGTH



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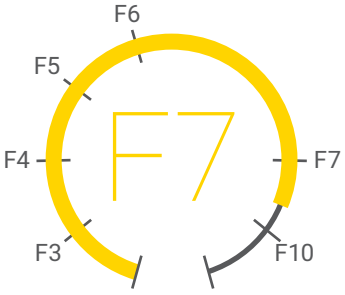

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product description

durotop

DUROTOP is designed to construct floors, which are prone to heavy duty utilization. Its use significantly increases the treated floor's lifespan. Available in 15 different colors. In case of special requirements, additional colors are also available. DUROTOP is available in standard and in PLUS variations.

MAIN FEATURES

- Very hard, abrasion resistant surface
- Easy to clean and maintain
- Dust free
- Oil resistant, but oils can cause stains on the surface
- Non-slippery
- Homogeneous, shiny surface
- Can be used in food processing plants
- Non flammable

TECHNICAL DETAILS

- Abrasion classification: A3
- Compressive strength: ≥80 N/mm² after 28 days
- Flexural strength ≥8 N/mm² after 28 days
- Hardness by MOHS scale: 8-9

INSTALLATION

The installation of DUROTOP is carried out simultaneously with the laying of the new concrete surface, which assures the perfect binding between the concrete and the dry shake hardener. Material consumption highly depends on the color. For further information refer to our Design guide.

MANUAL SPREADING (DRY–TO–WET)

The fresh, step resistant concrete should be pre-polished to ensure that moisture comes up to the surface. Then the pecified amount of DUROTOP hardener should be spread evenly onto the surface in two to three layers. The spreading process can be carried out by either a manual spreading cart or by a shovel.

USING A SPREADER MACHINE (DRY–TO–WET)

After levelling the surface with a Laser
Screed, DUROTOP should be spread directly on to the fresh concrete in one or two layers.

SLURRY APPLICATION (WET–TO–WET)

For slurry application, only DUROTOP PLUS version can be used. DUROTOP PLUS should be blended with water on the jobsite (4 liters/sack) and be spread on the step resistant floor after prepolishing process.

MATERIAL REQUIREMENTS

Manual spreading:	4-6 kg/m²	2-3mm
Machine spreading:	4-9 kg/m²	2-5mm
Slurry application:	10-18 kg/m²	5-9mm

DUROTOP FLOOR FINISHING PROCESS

This part of the DUROTOP installation process is done by either hand trowels and/or by double disc power trowel machines until the surface becomes smooth, hard and shiny. The quality of the floor can only be ensured, if the installation instructions are followed properly. (Please read our detailed Installation guide.)

CURING – AFTER CARE

DUROTOP floors need to be protected against quick evaporation that may result in cracking. DUROCURING and DUROSEAL are curing agents that can be used for this purpose.

JOINTS

To make saw cuts, we suggest to use DUROCUT blades. Until a final close of saw cuts, DUROPLAST PVC joint profile strips will protect the edges of saw cuts. DUROFLEX PU joint sealant and DUROFOAM rolls are for permanent joint filling.

FIRST TIME USE AND MAINTENANCE

Before the use of the new floor can begin, the following drying periods and precautions must be obeyed:
Pedestrian traffic: 2 days.
Light traffic: 7 days.
Intended normal traffic: 28 days.
For cleaning purposes, use only Ph neutral detergents. (Please, refer to our Maintenance guide.) In case of colored floors maintenance is very important. We suggest to treat the floor with LIQUIDUR product. When polished, it gives a permanently shiny surface.

PACKAGING

In bags of 25 kg on 1200 kg capacity pallets.

STORAGE

The shelf life of DUROTOP is 12 months, when stored in dry and non-frost, cool conditions.

You can find detailed information about PLUS version: Design guide.

DUROSTONE® durostone

Abrasion resistant surface hardener premix

DUROSTONE is a ready-to-use dry shake hardener containing abrasion resistant additives.

It is a combination of factory premixed assorted hardening particles, additives, cement and coloring pigments. Suitable for increasing the abrasion resistance of freshly laid monolithic concrete floors, cement based screeds.

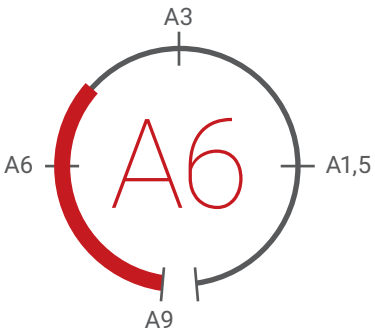
AREAS OF USE

- warehouses
- garages
- factories
- grain storages

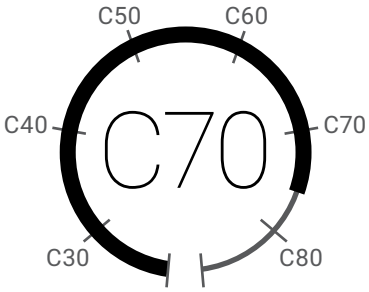
PRIMARY FEATURES

- good abrasion resistance
- good price/value ratio
- oil resistant but not stain resistant
- dust free
- easy to clean
- wide range of colors

BÖHME ABRASION RESISTANCE



COMPRESSIVE STRENGTH



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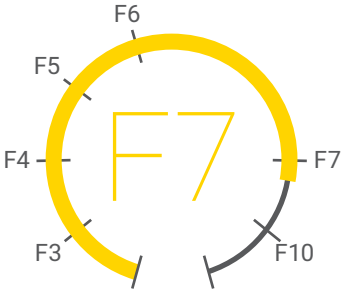

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product description

durostone

DUROSTONE is designed to construct outdoor and indoor floors, which are prone to average duty utilization.
Its use significantly increases the treated floor's lifespan.
Available in 15 different colors.
DUROSTONE is available in standard and in PLUS variations.

MAIN FEATURES

- Abrasion resistant surface
- Easy to clean and maintain
- Dust free
- Oil resistant, but oils can cause stains on the surface
- Non-slippery
- Homogeneous, shiny surface
- Can be used in food processing plants
- Non flammable

TECHNICAL DETAILS

- Abrasion classification: A6
- Compressive strength: ≥70 N/mm² after 28 days
- Flexural strength ≥7 N/mm² after 28 days
- Hardness by MOHS scale: 7

INSTALLATION

The installation of DUROSTONE is carried out simultaneously with the laying of the new concrete surface, which assures the perfect binding between the concrete and the dry shake hardener. Material consumption highly depends on the color. For further information refer to our Design guide.

MANUAL SPREADING(DRY–TO–WET)

The fresh, step resistant concrete should be pre-polished to ensure that DUROSTONE hardener should be spread evenly onto the surface in two to three layers. The spreading process can be carried out by either a manual spreading cart or by a shovel.

USING A SPREADER MACHINE (DRY–TO–WET)

After levelling the surface with a Laser Screed, DUROSTONE should be spread directly on to the fresh concrete in one or two layers.

SLURRY APPLICATION (WET–TO–WET)

For slurry application, only DUROSTONE PLUS version can be used.
DUROSTONE PLUS should be blended with water on the jobsite (4 liters/sack) and be spread on the step resistant floor after pre-polishing process.

MATERIAL REQUIREMENTS

Manual spreading:	4-6 kg/m²	2-3mm
Machine spreading:	4-8 kg/m²	2-4mm
Slurry application:	10-14 kg/m²	5-7mm

DUROSTONE FLOOR FINISHING PROCESS

This part of the DUROSTONE installation process is done by either hand trowels and/or by double disc power trowel machines until the surface becomes smooth, hard and shiny. The quality of the floor can only be ensured, if the installation instructions are followed properly. (Please read our detailed Installation guide.)

CURING – AFTER CARE

DUROSTONE floors need to be protected against quick evaporation that may result in cracking. DUROCURING and DUROSEAL are curing agents that can be used for this purpose.

JOINTS

To make saw cuts, we suggest to use DUROCUT blades. Until a final close of saw cuts, DUROPLAST PVC joint profile strips will protect the edges of saw cuts. DUROFLEX PU joint sealant and DUROFOAM rolls are for permanent joint filling.

FIRST TIME USE AND MAINTENANCE

Before the use of the new floor can begin, the following drying periods and precautions must be obeyed:
Pedestrian traffic: 2 days.
Light traffic: 7 days.
Intended normal traffic: 28 days.
For cleaning purposes, use only Ph neutral detergents. (Please, refer to our Maintenance guide.) In case of colored floors maintenance is very important. We suggest to treat the floor with LIQUIDUR product. When polished, it gives a permanently shiny surface.

PACKAGING

In bags of 25 kg on 1200 kg capacity pallets.

STORAGE

The shelf life of DUROSTONE is 12 months, when stored in dry and non-frost, cool conditions.

You can find detailed information about PLUS version: Design guide.

DUROSTONE® duroquartz

Surface hardener premix

DUROQUARTZ is a ready-to-use dry shake hardener.

It is a combination of factory premixed assorted quartz and cement. Suitable for increasing the abrasion resistance of freshly laid monolithic concrete floors, cement based screeds.

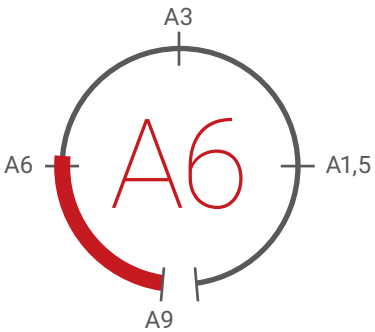
AREAS OF USE

- outdoor concrete surfaces
- under resin covers
- moderate duty floors

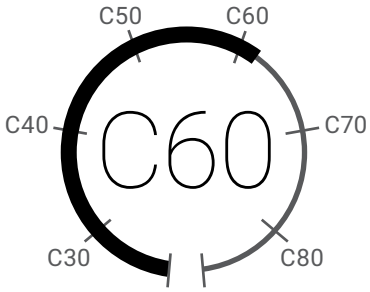
PRIMARY FEATURES

- easy to clean, dust free
- covers the steel fibers on the surface
- moderate abrasion resistance

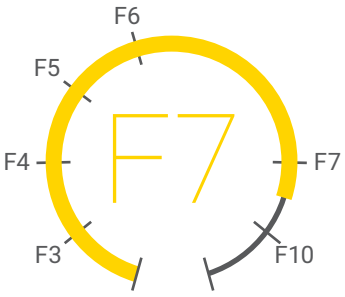
BÖHME ABRASION RESISTANCE



COMPRESSIVE STRENGTH



FLEXURAL STRENGTH



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product description

duroquartz

DUROQUARTZ is a moderate abrasion resistant surface hardener. Besides natural grey it is available in 4 different colors. It is designed for finishing steel fiber reinforced concrete slabs.

MAIN FEATURES

- Easy to clean and maintain
- Dust free
- Moderate abrasion resistance
- Non-slippery
- Cost-effective
- Non flammable

TECHNICAL DETAILS

- Abrasion classification: A6
- Compressive strength: ≥60 N/mm² after 28 days
- Flexural strength ≥7 N/mm² after 28 days
- Hardness by MOHS scale: 6

INSTALLATION

The installation of DUROQUARTZ is carried out simultaneously with the laying of the new concrete surface, which assures the perfect binding between the concrete and the dry shake hardener. Material consumption highly depends on the color. For further information refer to our Design guide.

MANUAL SPREADING (DRY–TO–WET)

The fresh, step resistant concrete should be pre-polished to ensure that DUROQUARTZ hardener should be spread evenly onto the surface in two to three layers (2-5 kg/m²). The spreading process can be carried out by either a manual spreading cart or by a shovel.

USING A SPREADER MACHINE (DRY–TO–WET)

After levelling the surface with a Laser Screed, DUROQUARTZ should be spread directly on to the fresh concrete in one or two layers. 2-3 kg are enough to finish steel fiber reinforced concrete slabs. This quantity will not increase significantly the abrasion resistance of the floor.

SLURRY APPLICATION (WET–TO–WET)

DUROQUARTZ cannot be used for slurry application.

DUROQUARTZ FLOOR FINISHING PROCESS

This part of the DUROQUARTZ installation process is done by either hand trowels and/or by double disc power trowel machines until the surface becomes smooth, hard and shiny. The quality of the floor can only be ensured, if the installation instructions are followed properly. (Please read our detailed Installation guide.)

CURING – AFTER CARE

DUROQUARTZ floors need to be protected against quick evaporation that may result in cracking. DUROCURING and DUROSEAL are curing agents that can be used for this purpose.

JOINTS

To make saw cuts, we suggest to use DUROCUT blades. Until a final close of saw cuts, DUROPLAST PVC joint profile strips will protect the edges of saw cuts. DUROFLEX PU joint sealant and DUROFOAM rolls are for permanent joint filling.

FIRST TIME USE AND MAINTENANCE

Before the use of the new floor can begin, the following drying periods and precautions must be obeyed:
Pedestrian traffic: 2 days.
Light traffic: 7 days.
Intended normal traffic: 28 days.
For cleaning purposes, use only Ph neutral detergents. (Please, refer to our Maintenance guide.)

PACKAGING

In bags of 25 kg on 1200 kg capacity pallets.

STORAGE

The shelf life of DUROQUARTZ is 12 months, when stored in dry and non-frost, cool conditions.

DUROSTONE®

durometal

Antistatic, impact resistant surface hardener premix

DUROMETAL is a ready-to-use dry shake hardener containing metal particles.

It is a combination of factory premixed, assorted hardening particles, additives, cement hydraulic binder and color pigments, in case of colored material. Suitable for constructing conductive, spark free industrial floors.

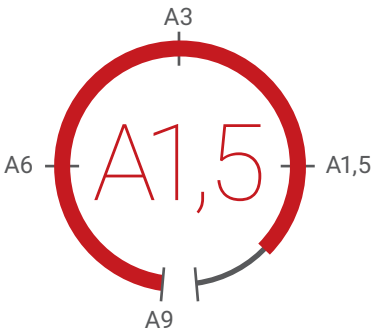
AREAS OF USE

- floors with extreme requisition requirements
- paint factories, explosive plants
- electronic device mfg. plants.
- warehouses and factories with sensitive equipment
- smelteries, metal processing plants
- floors exposed to tracked vehicle traffic

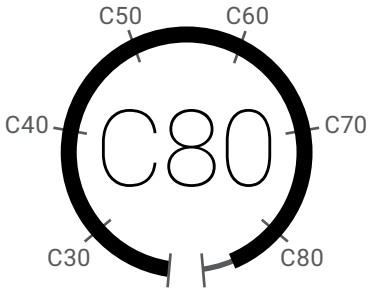
PRIMARY FEATURES

- extraordinary impact and abrasion resistance
- antistatic, conductive
- spark free (Durometal AE)
- oil resistant but not stain resistant
- dust-free, easy to clean

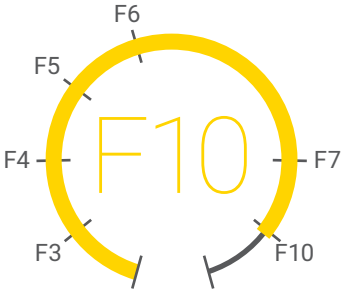
BÖHME ABRASION RESISTANCE



COMPRESSIVE STRENGTH



FLEXURAL STRENGTH



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product description

durometal

Floor made with DUROMETAL is extremely hard, impact resistant, since the metal particles of the material absorb the energy of the fallen object. DUROMETAL is suitable for creating conductive, antistatic and sparkless floor (DUROMETAL AE version). DUROMETAL is available in 15 colors. In case of special requirements, additional colors are also available. DUROMETAL is produced only in PLUS version.

MAIN FEATURES

- High level of impact and abrasion resistance
- Antistatic, conductive
- Spark free (DUROMETAL AE)
- Oil resistant, but oils can cause stains on the surface
- Dust free, easy to clean
- Non-slippery
- Non-flammable

TECHNICAL DETAILS

- EU Abrasion classification: A1,5
- Compressive strength: ≥80 N/mm² after 28 days
- Flexural strength ≥10 N/mm² after 28 days
- Hardness by MOHS scale: 8-9

INSTALLATION

This is a wet on wet technology, which assures the perfect binding between the concrete and the dry shake hardener. Therefore, the installation of DUROMETAL is carried out simultaneously with the laying of the new concrete surface. Material consumption highly depends on the color.
For further information refer to our Design guide.

DUROMETAL has a larger specific weight, than the average surface hardeners, therefore more material quantity is required to achieve the desired layer thickness. In case of spreading 6-8 kg/m², in case of slurry application 12-15 kg/m² material should be used. The installation steps are not different from other surface hardeners application processes.

MANUAL SPREADING (DRY–TO–WET)

The fresh, step resistant concrete should be pre-polished to ensure that moisture comes up to the surface. Then the specified amount of DUROMETAL hardener should be spread evenly onto the surface in two to three layers. The spreading process can be carried out by either a manual spreading cart or by a shovel.

USING A SPREADER MACHINE (DRY–TO–WET)

After levelling the surface with a Laser Screed, DUROMETAL should be spread directly on to the fresh concrete in one or two layers.

SLURRY APPLICATION (WET–TO–WET)

DUROMETAL should be blended with water on the jobsite (4 liters/sacks) and spread on the step resistant floor after pre-polishing process.

MATERIAL REQUIREMENTS – LAYER THICKNESS

Manual spreading:	6-8 kg/m²	2-3mm
Machine spreading:	6-10 kg/m²	2-4mm
Slurry application:	10-18 kg/m²	4-6mm

DUROMETAL FLOOR FINISHING PROCESS

This part of the DUROMETAL installation process is done by either hand trowels and/or by double disc power trowel machines until the surface becomes smooth, hard and shiny. The quality of the floor can only be ensured, if the installation instructions are followed properly. (Please read our detailed Installation guide.) DUROMETAL includes metal particles, which can corrode when touched by air. The corrosion of the metal particles on the surface of the floor does not mean any quality deterioration, it is only an aesthetic problem.

CURING – AFTER CARE

DUROMETAL floors need to be protected against quick evaporation that may result in cracking. DUROCURING and DUROSEAL are curing agents that can be used for this purpose.

JOINTS

To make saw cuts, we suggest to use DUROCUT blades. Until a final close of saw cuts, DUROPLAST PVC joint profile strips will protect the edges of saw cuts. DUROFLEX PU joint sealant and DUROFOAM rolls are for permanent joint filling.

FIRST TIME USE AND MAINTENANCE

Before the use of the new floor can begin, the following drying periods and precautions must be obeyed:

Pedestrian traffic:	2 days.
Light traffic:	7 days.

Intended normal traffic: 28 days.
For cleaning purposes, use only Ph neutral detergents. (Please, refer to our Maintenance guide.)

PACKAGING

In bags of 25 kg on 1200 kg capacity pallets.

STORAGE

The shelf life of DUROMETAL is 12 months, when stored in dry and non-frost, cool conditions.

DUROSTONE®

durocolor terrazzo

Decorative surface hardener premix

DUROCOLOR Terrazzo is a pigmented, filled with special colored aggregates, ready to use dry shake hardener for aesthetic floor construction.

DUROCOLOR TERRAZZO is a factory premixed cementitious drymix mortar, which contains graded, high hardness grind, additives and color aggregates. DUROCOLOR TERRAZZO should be applied as a wet mortar on a fresh surface. After finishing and polishing the surface, the colored irregularly shaped particles of the material will appear.

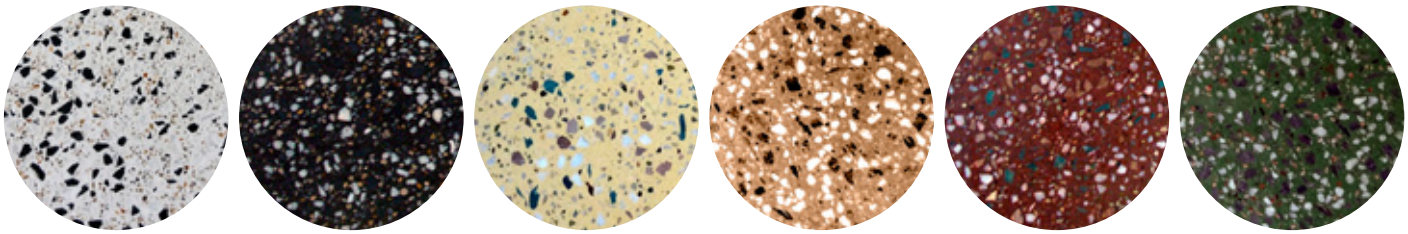
AREAS OF USE

- salons, showrooms
- restaurants
- public institutions
- industrial facilities of high aesthetic requirements

PRIMARY FEATURES

- wide range of colors, a variety of unique look
- aesthetic, shiny surface
- dust-proof, easy to clean
- durable, wear resistant

STANDARD COLORS



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Hard Hard Solution

product description

durocolor terrazzo

DUROCOLOR TERRAZZO is a special developed product to meet clients' decorative requirement. Various harmonious color combination of shiny and sparkling surfaces can be made of it. In addition to six standard versions, further color combinations can also be available.

TECHNICAL DETAILS

- compressive strength: ≥70 N/mm² at 28 days
- flexural strength: ≥7 N/mm² at 28 days
- abrasion resistance: A6 (EN 13892-3)
- granulometry: 0-5 mm
- density: 2400 kg/m³
- material consumption: 12-30 kg/m²
- layer thickness: between 6-15 mm

STANDARD COLORS:
white, anthracite, ivory, tobacco, red, green

COLORED GRANULES (MARBLE, BASALT, GRANITE):
white, black, green, red, yellow

DIRECTIONS FOR USE

The DUROCOLOR Terrazzo must be applied to walk-on, fresh concrete. Before applying the concrete finishing machine, the surface should be roughened with brooming for the best possible grip. Before any application on old concrete surface ask for more detailed information!

Making DUROCOLOR TERRAZZO mortar can be done with a concrete mixer. For larger implementations a mixer pump (for ex. Estrich Boy) is recommended. One bag of DUROCOLOR TERRAZZO should be mixed with 4-5 liters of water. The mortar should be mixed until a completely smooth, dense, homogeneous mass is obtained. Avoid water over-feeding, because it may cause cracks in the surface or segregation, that can degrade the quality of the floor.

The DUROCOLOR TERRAZZO of right consistency should be uniformly applied to the concrete. In case of a layer thicker than 5-6 mm, a guiding strip should be used to ensure a uniform thickness, and to achieve a good planimetry.

After the curing process starts, the surface should be compacted and finished with a finishing machine. The finishing should be started with full disk. In areas where the power smoothing is not possible, the surface should be hand finished. It is important that power finishing must be stopped before the surface would start to burn.

POLISHING

Grinding of DUROCOLOR TERRAZZO surface can be started after 5-7 days from application with an appropriate machine (p.ex. HTC, Blastrac).
It can arrive, that after polishing air bubbles in DUROCOLOR TERRAZZO will appear as tiny holes on the surface. These holes can be filled with DUROCOLOR FILLER material. This fine dry-mortar (of the same color) should be mixed with water and should be moved on the surface to eliminate the holes.

Before the final polishing the surface should be treated with LIQUIDUR liquid hardener. As an extra protection, it is recommended to apply a lacquer coating to give more shine and water-tightness to the surface.

The above description contains only general directions of use, does not cover every detail. Application can only be made by experienced, professional contractor.

PACKAGING

In bags of 25 kg.

STORAGE

The shelf life of the product is 12 months, when stored in dry, non-frost and cool conditions.

DUROSTONE®

durocuring

Water-based concrete curing liquid

DUROCURING is a ready to use impregnating, surface-treatment liquid that provides efficient curing and protection against drying for new floors constructed from plain concrete or with dry shake surface hardeners.

AREAS OF USE

- Industrial floors
- Monolithic concretes
- Indoor and outdoor concrete surfaces
- Cement based repair materials

FEATURES

- Easy to apply
- Eliminates dusting on concrete floor surfaces
- Ensures homogeneous, appropriate drying
- Limits the effects of cracking
- Can be applied to smooth or rough surfaces
- DUROCURING treated concrete floors are suitable for concrete paint, resin or ceramic coating
- Does not include silicone or any material, which could diminishes the attachment of new layer application
- Milk-white liquid

APPLICATION

DUROCURING should be spray applied to the surface of concrete immediately after the finishing operations.

USE OF MATERIAL

The quantity of DUROCURING used is highly dependent from weather conditions and the porosity of the concrete surface. In general, 80-100 gr. of curing liquid needs to be applied on a 1 m² surface. The suggested quantity should not be exceeded, because the excess material cannot blend into the surface and will create a yellowish white, wax-like coat on top of the surface. Though, this layer can be cleaned by mechanical cleaning.

PACKAGING

DUROCURING is supplied in 20 l jerry can and 120 liter drums.

STORAGE

Store in cool, but frost-free conditions.
Shelf life: 12 months.

SAFETY PRECAUTIONS

Water based product. Protect against freezing. Frozen product cannot be installed. Non-hazardous product.

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Hard Hard Solution

DUROSTONE®

duroseal

Solvent-based curing liquid

DUROSEAL is a ready to use impregnating, surface curing liquid, which provides an outstanding protection for the fresh concrete as well as for the dry shake hardener treated industrial floors against drying. It can also be utilized for impregnating stone coatings.

AREAS OF USE

- Industrial floors
- Colored surfaces
- Monolith concretes
- External and internal concrete surfaces
- Cement mortars, plasters

FEATURES

- Homogeneous, shiny surface
- Easy application
- Stops surface porosity
- Ensures proper and even drying process
- Reduces cracking
- Can be used on smooth and uneven surfaces
- Non-colored liquid with aromatic odor
- Density: 0.85

INSTALLATION

DUROSEAL is a ready to use product and must not be thinned with solvents. DUROSEAL needs to be applied with a sprayer or roller. In case of surface hardened industrial floors, avoid using it on too wet surfaces. Sprayer cleaning: with synthetic thinner. First time use: 6 hours at 20°C and 12 hours at 5°C.

USE OF MATERIAL

DUROSEAL material requirement depends on weather circumstances and the porosity of the concrete surface.
In general, for 1m² surface 80-100 gr. curing liquid should be applied. Avoid overdosing, because it creates a wax-like layer, which is hard to remove from the concrete surface.
When starting to use the floor, DUROSEAL can wear off quickly from the surface. In case of large areas, it can occur dust formation for a shorter period.
To avoid it, clean the surface with a special detergent.
For more information contact us.

PACKAGING

200 liter drums and 20 liter jerry cans.

STORAGE

Can be stored up to 24 months in a cool, dry environment, if the original, unopened packaging remains. Frost safe.

SAFETY PRECAUTIONS

It contains volatile, flammable solvents. Use in well ventilated areas. Smoking and open flames are prohibited in the application environment. Use fans and activated carbon cartridge respirator mask inside a room. Remember that the solvent is heavier than the air, so it descends down.
For more information ask for the product safety data sheet.

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Hard Hard Solution

DUROSTONE®

duroflex

One component, thixotropic, polyurethane sealant

Permanently flexible, thixotropic polyurethane sealant. DUROFLEX and DUROLFEX PRO harden by reacting with the humidity of the air. Due to them excellent adhesion and flexibility they are applicable on both horizontal and vertical surfaces.

AREAS OF USE

- Expansion and construction joints of industrial floors
- To seal prefabricated concrete structures
- Flooring of parking lots, stores, shopping malls
- Door and window frames
- Construction of air-conditioning, ventilation and heating systems
- Crack sealing
- Granite and marble surfaces
- Dilatation joint of concrete both inside and outside

TECHNICAL FEATURES

- Excellent adhesion on almost all surfaces (concrete, wood, ceramic, marble, metal, gypsum board, glass)
- Excellent weather resistance
- High chemical resistance
- Outstanding resistance to thermal fluctuations (remains flexible between -40 and 80°C)
- Great resistance to aging
- Paintable
- Concrete gray color (custom colors are available in case of large quantities)

DIRECTION FOR USE

The application surface must be sufficiently solid and clean, free from dust, grease, moisture, or any anti-adhesion matter. Clean the sides of grouts from laitance and other poorly adhering materials. MICROPRIMER is recommended to get perfect adhesion. Application of MICROPRIMER is highly recommended for joints with extreme weather exposure or in cases requiring high performance. The edges of joints should be covered by adhesive tape if necessary.

DUROFLEX and DUROLFEX PRO pastes should be applied by a press pistol or compressor.
In order to provide proper flexibility, please ensure that paste sticks only to the walls but not to the base of the gap. Apply DUROFOAM filling profile to control the depth of the gap and to avoid DUROFLEX and DUROLFEX PRO sticking to the bottom. After use the tools can be cleaned with paper towel and then acetone or xylene.

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DUROSTONE® duroflex pro

MATERIAL CONSUMPTION

Linear meters per sausage of a 600 ml according to the gap size.

WIDTH / DEPTH	5 mm	10 mm	15 mm	20 mm	25 mm
5 mm	24 fm	12 fm			
10 mm		6 fm	4 fm	3 fm	2,4 fm
15 mm					1,6 fm

(If the gap width is over 10 mm, the width/depth ratio should be at least 2:1)

PACKAGING

DUROFLEX: In 600 ml units, 15 sausages/package.
DUROFLEX PRO: In 600 ml units, 20 sausages/package.

STORAGE

It can be kept in unopened package at temperature between +10°C and +25°C for 12 months in a dry, cool place.
Protect from direct sunlight and from frost.

TECHNICAL SPECIFICATION

TECHNICAL FEATURES	DUROFLEX	DUROFLEX PRO	NOTE
Raw material	polyurethane paste reacting with the humidity of the air	polyurethane paste reacting with the humidity of the air	contains isocyanate
Density	cca. 1,45 g/cm^3	cca. 1,15 g/cm^3	DIN 53217 ASTM D1475
Consistency	thixotropic	thixotropic	thixotropic
Touch dry	2 hours	40-50 min	at +23°C, 50% RH
Curing speed	ca. 2-3 mm/day	3,5 mm/day	at +23°C, 50% RH
Application temperature	between +5°C and +25°C	between +5°C and +40°C	
Heat resistance	between -40°C and +60°C	between -40°C and +80°C	
E-modulus	ca. 0,3 N/mm^2	0,2 N/mm^2	DIN 52455 ASTM D412
Shore A hardness	ca. 30	40-45	DIN 53505 ASTM D2240
Elastic recovery	>90%	>70%	DIN 52458 ISO 7389
Elongation at brake	>700%	>950%	DIN 53504 ASTM D412
Adhesion to concrete	>20 kg/cm^2 (>2 N/mm^2)	>20 kg/cm^2 (>2 N/mm^2)	ASTM D4541
Environmental assessment		ÉMISSIONS DANS L'AIR INTÉRIEUR A+ A+ A B C	ISO 11600 F-25LM (EN) SNJF F 25E FDA specifications ASTM C920

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Hard Solution

DUROSTONE®

duroflow

Cement based self-levelling floor

DUROFLOW is a special fast curing, cement based, pumpable self-levelling product. It is delivered as an already prepared dry mixture which is mixed with water on the construction site. The final surface assures a high mechanical strength and abrasion-resistance.

PRODUCT DESCRIPTION

Duroflow self levelling product can be used on fresh and old concrete and to cover ceramic surfaces as top layer. Because of its high mechanical strength and abrasion-resistance, it can be used as final covering.

AREAS OF USE

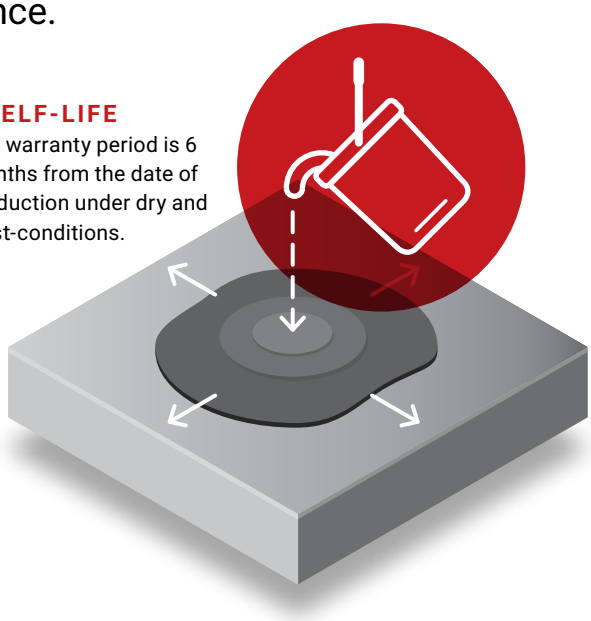
- Garages, parking lot
- Supermarkets
- Factories, workshops
- Floor renovations
- Floors with flatness requirements

PACKAGING

DUROPRIMER: in cans of 5 and 20 liters
DUROFLOW mortar: In bags of 25 kg on 1050 kg capacity pallets.

SHELF-LIFE

The warranty period is 6 months from the date of production under dry and frost-conditions.



TECHNICAL DETAILS

TECHNICAL FEATURES	DUROFLOW 340	DUROFLOW 350	DUROFLOW 360
Thickness	6-30mm	6-10mm	8-15mm
Flexural strength	8 N/mm² (after 28 days)	11 N/mm² (after 28 days)	10 N/mm² (after 28 days)
Compressive strength	37 N/mm² (after 28 days) Final strength >40 N/mm²	40 N/mm² (after 28 days) Final strength >45 N/mm²	40 N/mm² (after 28 days) Final strength >50 N/mm²
Adhesion	>2 N/mm²	>3 N/mm²	>3 N/mm²
Grain size	max. 1 mm	max. 1 mm	max. 3 mm
Shrinkage (50% rel. humidity)	<0,55 ‰	<0,50 ‰	<0,65 ‰
pH value	approx. 11,5	approx. 11,5	approx. 11,5
Flowability (ø 50x23mm)	150-155 mm	150-155 mm	135-140 mm
Material consumption	ca. 1,75 kg/mm/m²	ca. 1,75 kg/mm/m²	ca. 1,9 kg/mm/m²
Water demand	18% (4,5 l/25 kg sack)	18% (4,5 l/25 kg sack)	14% (3,5 l/25 kg sack)
Dry powder density	ca. 1,6 g/cm³	ca. 1,6 g/cm³	ca. 1,8 g/cm³
Open time	ca. 15 min.	ca. 15 min.	ca. 15 min.

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Hard Hard Solution

application
general requirements

duroflow

The work area should be closed, sun and wind protected. In outdoor facilities only DUROFLOW 360 can be used. The contractor will be responsible for all problems arising from improper circumstances. Subtract can be a monolith concrete slab, screed floor or levelled surface.

BASE REQUIREMENTS

The base should be solid, dry, free of dust, loose part, paint, wax, oils, and mechanically abraded. The surface must be roughened with blasting, grinding or milling if needed. The holes and cracks must be repaired with DUROGLETT mortar. The base must have a tensile strength of 1,5 N/mm².

PREPARATION

Apply DUROPRIMER bonding agent to cleaned surface with a brush or sprayer in two layers. In the case of the first layer water dilution ratio should be 1:5, and 1:3 for the second coating. Avoid formation of puddles. DUROPRIMER coating must be touch dry before application of the mortar.

MIXING

The dry mixture is to be mixed shortly before application with drinking water in the ratio 4,5 liters of water per 25 kg of dry mixture in order that the required fluidity is achieved. It is necessary to check the fluidity during the application by implementing a fluidity test. The mixing is to be done in a machine with the use of an automatic mixer with pump and delivery hose. In the case of a minor scope of work it is possible to mix the material in a mixing vessel using the mixing adapter of the drilling machine. Drilling time is 3 minutes, at low speed about 500 rpm.

APPLICATION

The water-mixed material should has a self-leveling consistency, and should be applied within 15 minutes. Recommended thickness is 6-10 mm. For a thicker layer multi-stroke work is recommended.
The DUROFLOW should be applied by proportional pouring in stages (20-30 cm) of the width of the field (8-12 m) depending on the manner of the flooring and thickness of the layer. It is necessary to ensure that the new material is applied on already applied material to ensure convergence (within 5 minutes). Smooth the freshly applied material using a notched trowel or de-aerating roller in order to remove air bubbles and joints in the applied areas.
The required temperature of the base and environment during the application is stated to be within the range
+5 to +25°C.

AFTER CURE

The surface must be protected from drafts, high or low temperature during the application and in the early curing phase. Protect the floor from mechanical damages for at least 48 hours. DUROFLOW surface is jointless, but joints should be cut over the construction and expansion joints of the substrate within 24 hours.

FIRST TIME USE AND MAINTENANCE

Before the use of the new floor can begin, the following drying periods and precautions must be obeyed:
Pedestrian traffic: 1-2 hours.
Light traffic: 24 hours.
Intended normal traffic: 1 week.
For cleaning purposes, use only Ph neutral detergents. (Please, refer to our Maintenance guide.)

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DUROSTONE®

durochape

Non-slippery acrylic floor coating

DUROCHAPE can be applied on finished concrete surfaces. It is a cement and resin emulsion binding slurry material, which can be used for creating a 1 cm thick, self-colored, heavy duty use, monolithic floor surface coating.

AREAS OF USE

- Food industry plants, slaughter houses
- Floors that face intensive different chemical treatments
- Old industrial floor renovations

DUROchape meets the requirements of the European Food Regulation (1895/2005/EC 2023/2006/EC). DUROCHAPE covering resistant to most of the material used in most food industry.

DUROCHAPE is an outstanding solution in – because of its high abrasion resistance – industrial halls, warehouses, anywhere, where the floor has to face heavy duty, intensive traffic. DUROCHAPE can be applied to fresh, but already dry concrete, or to old concrete; can be used at new constructions or at renovations.

DUROCHAPE has outstanding resistance parameters against blood, souse (Salt-mordant), greases, and fats. Resistant to every type of blended acid or lye, which are frequently used by the food industry for cleaning purposes.

DUROCHAPE can be used for creating rounded plinths for partition walls, but it can fully cover mason structured and protective shoulders as well.

DUROCHAPE is extremely easy to keep clean with power washing system, neutral or lye-based detergents or with low pressure foam-spray. Detergents and mordant products must be avoided.

FEATURES

- Good shock and abrasion resistance
- Non-toxic, odorless
- Dust-free
- Watertight
- Non-flammable
- Abrasion resistance: A6 (Böhme)
- Compressive strength: 60 N/mm²
- Flexural strength: 12 N/mm²
- Adhesion: 2,8 N/mm²
- Coefficient of friction: 0,40 (INRS)
- Stable from -60°C to + 80°C

JOINTS

DUROchape does not require separate joint alignment process. In case the concrete floor had dilatation joints, then these joints need to be re-cut in the DUROCHAPE coating and has to be filled with adequate filler.

FIRST TIME USE

After 24 hours for light traffic.
After 48 hours for normal traffic.
Final strength and color will be achieved after 28 days.

SHELF LIFE

For all three components: 12 month in cool and dry place.

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Hard Hard Solution

application durochape

The work area should be closed, sun and wind protected. Outdoor application is not recommended. The contractor will be responsible for all problems arising from improper circumstances. Subtract can be a monolith concrete slab, screed floor or levelled surface.

I. GENERAL CONDITIONS OF APPLICATION

The supporting surface must be at least of 14 days, of 1,5 MPa of tensile strength and of 25 MPa of compressive strength. The temperature should be between +5 and 25 °C. If you use some self levelling product to make the supporting surface, you have to finish it at least 48 hours before applying DUROCHAPE, and the surface must be roughened with a broom. The self levelling product must be of 25 N/mm² of compressive strength.
The surface must be clean, free from any material that can reduce bonding. Old and contaminated surfaces must be prepared with blasting, grinding or milling. The slopes should be created on the base surface.

II. APPLICATION

1. PREPARATION

The surface must be clean and oil free. Before application the surface should be rinsed with water so that pores can be filled with water. When applying the bonding agent, the surface must be wet, but be free of water spots.

2. PREPARING THE BONDING AGENT

DUROCHAPE floor system consists of 3 components:
"A" component: polyacryl artificial resin emulsion,
"B" component: cement with pigments and additives.
"C" component: quartz
To make one portion of bonding agent you will need 8 liters of *A component* and 30 kg (one bag) of *B component*. Mixing should be made until having homogeneous slurry. This quantity is for about 25 m². Bonding agent should be poured on to the surface and be broomed evenly with a brush. The consistency of the bonding agent is appropriate, if it is not liquid, and traces of the broom remain on it.

Important:
DUROCHAPE mortar can be spreaded only on wet bonding agent, so you should apply bonding agent on a surface that will not dry until DUROCHAPE spreading.

3. APPLYING DUROCHAPE MORTAR

Use a mixing machine or cement mixer to prepare the DUROCHAPE mortar. Pay attention so that the mortar should be homogenous.
Preparing DUROCHAPE mortar: 6 liters of *A component* + 30 kg *B component* + 50 kg *C component*. This quantity is enough for 2,5 m², in 1 cm thickness. First make a dilute mixture and gradually add to it the bagged material. Mixing time is 2-3 minutes. The mixture is appropriate when thick, dry mass is obtained, that will not stick to the hand.
DUROCHAPE mortar is of very dry consistence. To handle it more easily, you can add to it some water, but please note that adding water will reduce the compressive strength.

Important: If you add any water to the mixtures, you should add the same quantity every time to assure a homogenous color of the floor.

DUROCHAPE mortar should be spreaded evenly on the wet bonding agent. You can use a guiding bar or guiding strip to adjust the level the surface. Levelling should be made by a screed bar. After levelling trowelling is recommended to achieve appropriate compacting and homogenous surface. Final finishing can be made by power trowel machine or by hand. The finishing brings out the finer particles mortar, so close to the surface. Then it can be manually smoothed again to get a more uniform surface. If the power trowel is not available, the entire process can be done manually. In this case, the work process is slower. Depending on the application method 50-100 m² of DUROCHAPE floor can be made per day.

Important: During the manual or mechanical smoothing of the surface can be wetted, but only with the *A component*. Moistening with water may cause staining. During the first 48 hours, the substrate must not exposed to any kind of liquid, as this may cause staining.

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DUROSTONE®

liquidur

Concrete surface densifier and hardener liquid

LIQUIDUR is a ready-to-use colorless fluid that penetrates deep into the concrete, strengthening and hardening it by chemical reaction. It is highly efficient due to its lithium silicate content compared to the standard sodium and potassium based surface hardeners, and it does not cause efflorescence. Floors treated by LIQIUDUR acquire more abrasion resistance, impermeability and resistance to chemicals.

AREAS OF USE

- Industrial floors
- Monolith concrete surfaces
- Out- and indoor concrete surfaces
- Cement-based repair mortars

TECHNICAL FEATURES

- Increases the surface impact and abrasion resistance
- Creates/Enhances resistance against several chemicals
- Completely isolates pores
- Improves the freeze and salt resistance
- Considerably reduces dust forming, improves cleanability
- Transparent material that does not change the color of the base surface, the surface becomes glossier

TECHNICAL DATA

- Appearance: transparent, colorless liquid
- Density (at 20°C): 1,1 ± 0,05 g/ml
- Viscosity (at 20°C): 10-50 mPa.s
- pH: 10 -11
- Flash point: not relevant
- Dust-free drying time: 1-3 h (at 20°C)

USE OF MATERIAL

50-100 gr/m², depending on the porosity of the floor.

TEMPERATURE LIMITS

Application temperature range between +5°C and +40°C.

SAFETY PRECAUTIONS

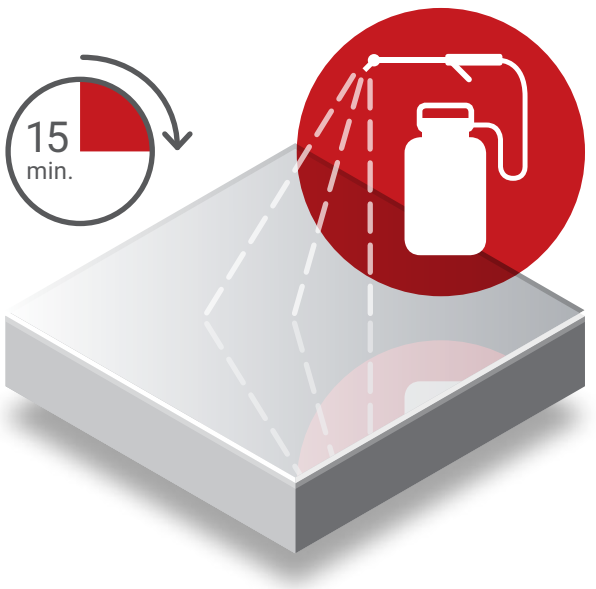
Water based lithium silicate. Non-hazardous, non-flammable. Safety equipment (eye protection, gloves, protective clothing) recommended to use during spraying. Do not use material if room has high humidity or poorly ventilated.
Glass and metal surfaces must be protected during application.
For further information ask for the product safety data sheet.

PACKAGING

Supplied in 20 liter cans.

STORAGE

May be stored for up to 12 months in its original packaging in a dry area at ambient temperature between 5°C and 25°C. After opening apply it soon as possible.



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installation guide

liquidur

Concrete surface densifying and reinforcing liquid installation and maintenance guide.

APPLICATION

In case of fresh concrete the optimum effect can be achieved at least 72 hours after finishing the concrete. It is suggested that LIQUIDUR is applied with spray equipment. However brush or roller can be used too but it must be ensured that no puddles formed. After application, it is recommended to spread the material evenly by a soft mop or microfiber pad. This process breaks the liquid's surface stress and supports absorption. Ensure that the surface remains wet and overall shiny for at least 10-15 minutes. Where the surface dries faster, i.e. at higher porosity spots or near edges additional material should be applied. Then let the product dry on the surface.
In case of existing concrete remove all dirt oil, grease and loose particles.
Very porous surface can be wetted by water before the application of the product. The effect of the product can be enhanced by using second layer. In case of two layers do not let the first layer to dry completely.

CLEANING

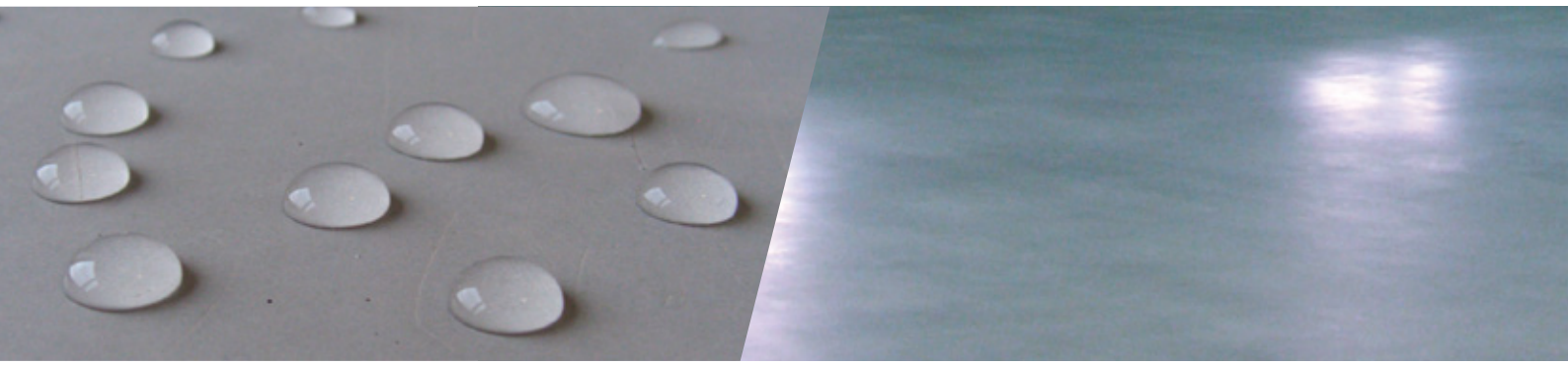
The equipment and tools should be cleaned with water immediately after use.

FIRST TIME USE

The surface can be utilized after drying (1-3 hrs) however the beneficial properties develop fully after 7 days. In regards to loading of the floor, please follow the guidelines of the concrete floor itself.
After 3-7 days the floor can be painted or any additional layers may be applied.

MAINTANCE

After application of LIQUIDUR – in opposition to other materials – the surface and aesthetic appearance of the floor will be better and better over the time and the top appearance will remain until the lifespan of the floor. Thus, the repetitive application of the material is not required.
Because of this treatment, the dust and other residue will not stick into the pores of the floor, basically the cleaning process becomes effortless. Maintain your floor by daily cleaning, using large quantities of water and floor cleaning detergents. Preferably use a neutral detergent.



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DUROSTONE® duroplast

PVC joint profile strips

DUROPLAST joint profile is designed to fill shrinkage and work gaps of industrial floors. It is a flexible profile made from PVC, which can be quickly and easily inserted into the joints. Ideal solution to provide an immediate plug for cut joints, which protects the joints from dirt and prevents edges to break off.

PRODUCT CHOICE

DUROPLAST is available in two different sizes. You can choose the adequate size based on the thickness of the disk of cutting machine used:

Duroplast type	Thickness of disk	Thickness of profile
55 B	2,8 mm	3,8 mm
55 G	4,2 mm	6,0 mm

PACKAGING

Delivered in 250 m rolls.

TECHNICAL FEATURES

- Fast and clean installation
- can be inserted immediately after cutting
- Protects profile edges from cracking
- It does not age, rotten and quality is good for an indefinite time
- grey coloured
- can tolerate 2-3 mm of shrinkage of concrete

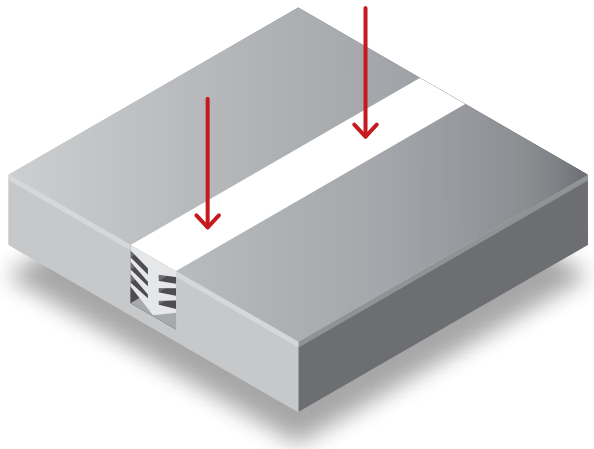
Occasionally, when the floor reaches its final drying period and shrinks to its final level, Duroplast might need to be changed for thicker version or to be switched for regular joint profile seal.

INSTALLATION METHOD

Insertion of DUROPLAST can be made by using a special machine or by the help of a hammer. Ideal product, since it can be installed immediately after floor installation is finished.

BEST BEFORE DATE

Indefinite and does not require special storage.



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DUROSTONE®

durofoam

background filling profile

DUROFOAM is a closed cell polyethylene profile, which can be used to fill deep working or saw cut joints of industrial concrete floors. DUROFOAM is a support or DUROFLEX joint filler.

ADVANTAGES

- Helps to optimize the use of filler material
- Helps elastic movement of filler material
- Ensures optimising the height and width of joint gaps

TECHICAL DATA

- Easy to use
- Soft and elastic
- Close cell structure, not absorbent
- Tolerates changes in temperature
- Available with different diameters
- Grey coloured

RANGE OF PRODUCT

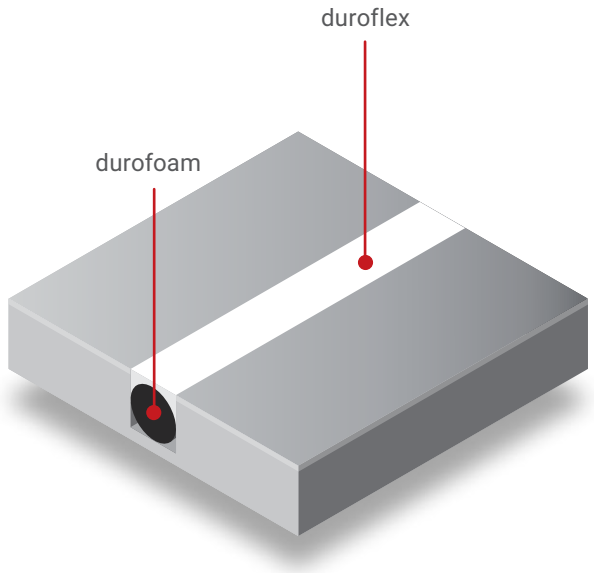
TYPE	DIAMETER	OUTFIT
DUROFOAM 6	6 mm	500 fm
DUROFOAM 10	10 mm	600 fm
DUROFOAM 15	15 mm	250 fm
DUROFOAM 20	20 mm	150 fm

INSTRUCTION FOR USE

It is very easy to install it, does not require any special tools. Pay attention so that the surface of DUROFOAM will be free from defection. The appropriate diameter is 20-25% more than the width of the gap to be filled.

STORAGE

To be store in dry conditions.
Shelf life: unlimited



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DUROSTONE®

durocut

diamond cutting wheel

DUROcut PAL cutting wheel is suitable for cutting expansion joints in fresh concrete floors.

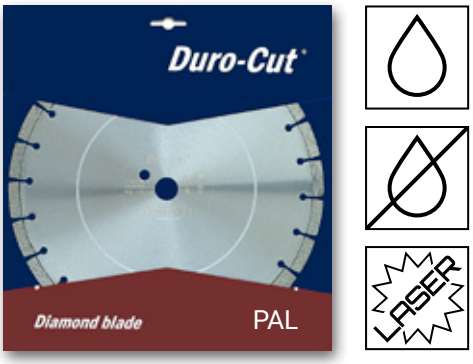
The diamond segments of the cutting blade are specially developed to cut concrete floors of 2-3 days. The average lifespan is 75 m². That means that a cutting disc – supposing a depth of 7.5 cm – can cut 1000 m of expansion joints. The smaller is the depth, the longer joint can be cut with one blade. (Naturally the service life depends largely on the quality of the concrete, fiber reinforcement, age).

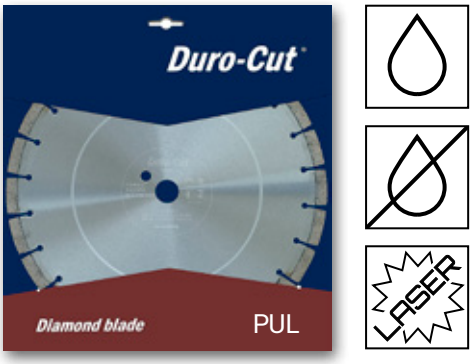
AREAS OF USE (PAL)

- Industrial floors with fibre reinforcements
- Concrete floors
- Outdoor concrete surfaces
- Landing strips, bridge building
- Estrich surfaces

DIMENSIONS

TÍPUS	DIAMETER (MM)	BORE (MM)	SEGMENT (MM)
PAL230	230	22,2	10
PAL300	300	25,4/20	12
PAL350	350	25,4/20	12
PAL400	400	25,4	12
PAL450	450	25,4	12





AREAS OF USE (PUL)

- Old concrete
- Asphalt

DIMENSIONS

TYPE	DIAMETER (MM)	BORE (MM)	SEGMENT (MM)
PUL230	230	22,2	10
PUL300	300	25,4/20	12
PUL350	350	25,4/20	12
PUL400	400	25,4/20	12
PUL450	450	25,4/20	12

MAIN FEATURES (PAL, PUL)

- Laser welded diamond segments
- Long life, high cutting performance
- Alternating segment dimension for longer life and easier removal of cutting waste

Contact us if you need additional cutting or grinding products.

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DUROSTONE®

polimix

concrete re-enforcing polypropylene fiber

POLIMIX is industrial re-enforcing fiber developed for concrete manufacturing. Besides monolith concretes, it is applicable for enforcing cement based concrete slabs and mortars. It dissolves homogeneously within the concrete creating a spatial-net by which it significantly reduces the cracks developing during the retraction phase. POLIMIX is resistant to chemicals and it enhances the dust free qualities and improves the impact- and abrasion resistance of the treated floor.

AREAS OF USE

- Industrial floors
- Different types of estrichs
- Light concretes
- Vacuum concretes
- Dry shake hardeners
- Pre-fabricated concrete products

FEATURES

- Raw material: polypropylene
- Shape: round
- Diameter: 16 micron
- Fiber length: 12 mm
- Fiber quantity: 275 million pcs/kg
- Specific weight: 0,91
- Flexibility modulus: 3500-3900 N/mm²
- Tensile Strength: 400 N/mm²
- Melting temperature: 160-170°C
- Flammable temperature: >320°C
- Electric conductivity: 0
- Chemical material resistance: good

INSTRUCTION MANUAL – BATCHING TO CONCRETE

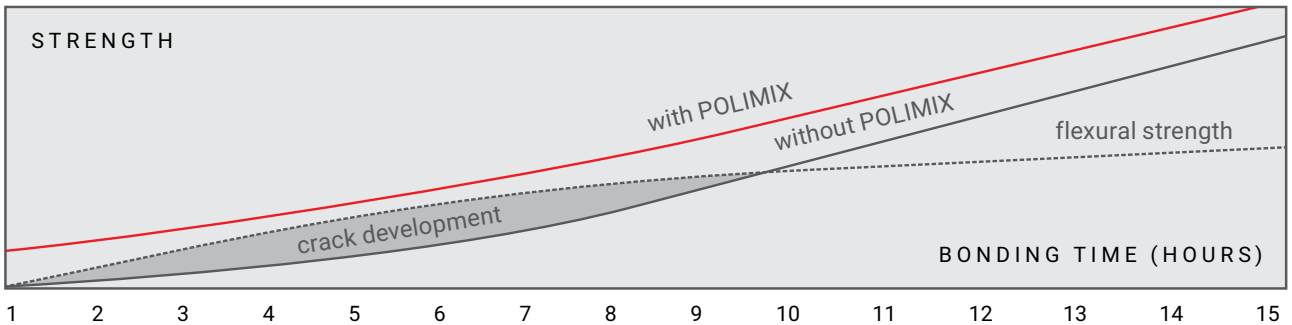
The application of POLIMIX is simple. The polypropylene fiber can be added directly to the mixer and mixed together with the concrete itself either at the mixing factory or on the construction site. The POLIMIX needs to be batched bag by bag. Before use, please double check the specified quantities and product qualities.
The paper bag perfectly dissolves in the concrete mixer. Extra water is not required to increase tractability, liquidizer can be used instead. The mixer needs to be operated in the highest rpm setting.
Mixing time: 7-10 minutes.
At the concrete factory, premix the material when dry and then add the necessary water. The batching can be done by either hand, pulley or other batching device. The dry mixing period should be at least 30 seconds and after adding the water, the mixer should be operated for at least 2-3 minutes. Pay special attention to the fiber distribution. The mixing time can differ depending on mixer size, mixer performance and the quantity of the material.

PACKAGING

Provided in 900 gram water-soluble paper bags. In case of special demands, we can offer different packaging or fiber lengths.

BEST BEFORE DATE

Indefinite.



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Hard Hard Solution

DUROSTONE®

duroprimer

Bonding agent for concrete mortars

DUROPRIMER is a low viscosity aqueous polymer dispersion. Excellent primer agent for self-leveling floors, and concrete repairs.

AREAS OF USE

- To prepare self-leveling floors
- For concrete repairs works
- Monolithic thin coatings
- Before wall and façade paint as pore-sealer, dust-binding, adhesion improver
- Dust control of concrete, gypsum and lime plaster surfaces

FEATURES

- Butyl Acrylate – styrene copolymer based low viscosity dispersion.
- Does not contain film formation agents, solvents, plasticizers.
- The dispersion film is shiny, water clean, free from grains, and does not stick. The film is highly flexible, film-forming temperature is low.
- Excellent bonding properties to old concrete surfaces.
- Concentrate must be diluted before use.

TECHNICAL PROPERTIES

- A white, milky liquid
- Density: 1.02 to 1.05 g/cm³
- pH: 7.5 to 8.5
- Solid content: 50 ±1%
- Viscosity at 20°C (Brookfield 2/50) max. 200 cps
- The minimum film forming temperature: 8°C
- Water absorption: (24 h) 6%
- VOC content: max. 10 gr./l

TEMPERATURE LIMIT

It can be used between +5°C and +35°C.

MATERIAL REQUIREMENTS

8-15 m²/l depending on the porosity of the surface.

INSTALLATION

DUROPRIMER should be applied on the cleaned surface with two coats. Application can be made by spray or roller, or brush.
The primer is a concentrate that should be diluted with water before use. Dilution rate depends on the substrate porosity. Higher dilutions gives greater penetration and thus represents a deeper strengthening of the concrete structure.
When used for self levelling products, the proposed dilution rate is:

FIRST LAYER:

1: 5 (one part primer to five parts water).

SECOND LAYER:

1: 3 (a grounding part, three parts water).
The second layer should be applied before the first one dries.
In case of very porous surfaces, you should wet it before the application.

CLEANING

Tools and equipment can be cleaned with water.

PACKAGING

20 liter jerry cans.

STORAGE

Can be stored up to 12 months in a cool, dry environment in the original, unopened packaging.
Frost hazard, the frozen product must not be used.

SAFETY PRECAUTIONS

Water-based emulsion. Non-hazardous, non-flammable.
Ask for the product safety data sheet for more information.

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Hard Hard Solution

DUROSTONE®

durosmart floorprotect s

One component silane-based impregnating and varnish for concrete surfaces

DUROSMART FLOORPROTECT S is a ready to use, one component, moisture curing clear coat with exceptional performance in a multitude of applications. It has excellent water, chemical, heat and spot resistance.

AREAS OF USE

- Industrial floors
- Car parks
- Grinded or polished decorative floors
- Impregnation of concrete surfaces
- Thin-layer coating, topcoat.
- Final protective layer

TECHNICAL FEATURES

- Watertight but vapor permeable
- Oil and alkali-resistant without stain
- Resistant to most of the acids
- Heat resistant
- Easy to clean, non-slippery
- Aesthetic, shiny, wet-look surface
- Easy to apply
- Excellent interlayer adhesion
- Color version available on demand

TECHNICAL DATA

- Density (at 20°C): 1,15 g/ml
- Appearance and color: transparent, colorless – light yellow
- Flash point: 103°C
- Viscosity (at 25°C): 100-150 mPa.S
- Anti-slip: dry: R13, wet: R11

CONSUMPTION

80-100 gr/m² in two coats, depending on the porosity of the floor.

TEMPERATURE LIMITS

Application temperature: +10°C and +30°C.

APPLICATION

Remove oil, grease and wax contaminants and any loose particles. The surface must be clean and dry before the application. In case of new concrete wait for at least 28 days or until the moisture content of the concrete is less than 5%.
Apply with shorthair solvent resistant roller or mop, airless spray is also possible. Apply it in two directions perpendicularly to achieve a very thin even layer.
Avoid the formation of puddles or thick layers as this may cause bubbling.
After the first layer the surface can be spotted or uneven. The second layer can be applied after 24 hours but at least after 16 hours. 20-50% less material needed for the second coat.

The treated surface is ready for light traffic after 24 hours and full load is possible after 72 hours.
In the case of very porous surfaces, the first layer can be diluted with 5-10% with e.g. white spirit or other non-water containing solvent. Do not dilute with water.
The lacquer is worth reviewing annually and if necessary, it can be renewed easily by applying a new coat.

CLEANING

The equipment and tools could be cleaned with white spirit or equivalent.

PACKAGING

In 20 kg and 5 kg cans.

STORAGE

May be stored for up to 12 months in its original packaging in a dry area at ambient temperature between 5°C and 25°C.
After opening apply it soon as possible.

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DUROSTONE®

installation guide

for dry-shake (dry–to–wet) or slurry (wet–to–wet) applications

Surface hardeners manufactured by Durostone Kft. are suitable for constructing industrial floors to support – depending on type – medium to heavy duty use traffic (plants, workshops, warehouses, stores, garages etc.).

INSTALLATION CONDITIONS

- Quality of concrete: minimum C20
- Completely isolated work area (from above and from the side)
- Minimum temperature: +5°C

GENERAL REQUIREMENTS

Air-entraining admixture should not be used for the concrete. Any excess water or chemicals floating on the top of the concrete should be removed. The fresh, step resistant concrete should be pre-polished by a trowelling machine and it is recommended to roughen the surface using a broom before spreading the surface hardener. Care should be taken that the cement slurry or fine pulp not to remain on the surface.

APPLICATION

DRY–TO–WET APPLICATION.

In case of manual spreading the surface hardener premix should be evenly spread in maximum quantities of 6 kg/m² onto the surface in two to three layers. The achievable layer thickness by such method is approx. 2-4 mm. In case of screed machine used higher material consumption is also possible, although it is recommended that the second layer should be applied by a hand on the troweled concrete surface. Make sure that the concrete is wet enough to accept the dry shake hardener, moreover, ensure the spreading to be as even as possible. Every layer must be worked in by a trowelling machine. This trowelling process can be started 15-20 mins after spreading. Avoid additional water application as much as possible. The trowelling process should be continued until a completely dry, closed, hard surface is achieved. Industrial floors constructed by surface hardener material are becoming shiny, smooth and dust free – as the floor becomes harder – by adjusting the flaps of the trowelling machine to a higher slope.

WET–TO–WET APPLICATION.

In case of slurry application (min. 10 kg/m²) the dry shake hardener should be blended with water on the job-site by adding ca. 3,5-4 liter of water to a 25 kg bag – until completely homogeneous, dense dollop is achieved. The slurry must be applied on the step resistant concrete.
During the spreading of the slurry the level must be monitored by laser. Using 12 kg/m² of material, an approximately 5-6 mm layer thickness can be achieved.
The trowelling process can be started depending on the drying of the slurry. First a lighter one disc trowel then the heavier two disc trowelling machines can be used. The finishing phase is exactly the same as it was described in the manual spreading section.
Slurry application method is suggested for intensive, heavy duty traffic utilizations and in such cases where the floor is light in color and the aesthetic, homogeneous color is an important factor. Take special care in water quantities, because using a very dilute slurry cannot ensure the evenly distributed layer thickness, moreover, during the drying period the surface is more prone to crack as result of shrinkage.
Installation time always depends on the environmental factors: Temperature, humidity, quality of concrete, binding decelerator or use of any additional additive. Besides the applied surface hardener, the hardness of the surface highly dependent on the work carried out by the trowelling machines. The more the power trowel works on the floor, the harder and closer the surface will become. Floors constructed by using Durostone Kft. distributed surface hardeners can only be immaculate in case of the absolute and precise obedience of the installation guide.

CURING – AFTER CARE

To avoid the quick drying of the concrete DUROCURING or DUROSEAL impregnating liquid should be sprayed on to the floor right after the finishing operation.

FIRST TIME USE

After 7 days for light traffic and after 28 days for normal traffic.

MAINTENANCE

For cleaning purposes of the surface hardener constructed floor, use only Ph neutral (or nearly natural) detergents and use cleaning machines only with non-scraping discs. The cleaning of the floor is might be outsourced to a specialized company.

ENVIRONMENTAL PROTECTION – WORK SAFETY

Includes cement. Avoid dust inhalation, irritative material, avoid continuous contact with skin, because can cause allergic reactions. In case of eye contact, wash out the material with plenty of water and consult a physician. Always wear appropriate safety equipment during application and handling (protective mask, protective goggles etc.).

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Hard Hard Solution

DUROSTONE® maintenance guide

The maintenance of surface hardener treated floors is a really important task, since improper use or cleaning can cause critical damages on the surface of the floor.

AFTER THE FLOOR INSTALLATION IS FINISHED

The dry-shake hardener treated industrial floors can be utilized for pedestrian traffic after 2 days, for light duty traffic after 7 days and for heavy-duty traffic after 28 days of its installation. On most occasions after the floor installation, other industrial jobs are carried out. It is important that during this period the floor is protected against surface impurities, damages such as paint, lime, plaster, and chemicals.
It is advisable to cover the floor with plastic covers or geo-textile until the official delivery. The geo-textile also provides protection against damages caused by accidentally falling tools.

AFTER THE FIRST USE OF THE NEW FLOOR

The dry-shake hardener treated industrial floors require regular cleaning and maintenance after the surface is fully installed. The drying period of the surface can take weeks or months after delivery, creating optically a smudgy effect. This is not the fault of the installation it is just an aesthetic problem.
The installing companies sprinkle curing liquid on the floor, in order to ensure proper hydration for concrete surfaces. The curing liquid after the hydration period is not necessary anymore. The curing liquid layer will fade away after the floor is being used. During this process, some parts of the floor will fade, while the least frequently used areas will have the curing liquid fade slower.
In case of large surface it can occur that the curing liquid wears off quickly because of the suddenly appearing traffic after the first time use. This causes temporary but intense dust formation. This phenomenon can be prevented if the film of the curing liquid is removed by a cleaning using a special cleaning agent before the official delivery.
Please contact us for further information.
As a result of continuous daily use and regular cleaning the surface will become homogeneous and slightly shiny.

OIL RESISTANCE

The cement-based abrasive layer of the dry-shake hardener treated industrial floors is oil and grease resistant. This means that if the oil and grease impurities remain on the surface for 12-24 hours, they will create smudges, but the parameters and consistency of the floor will remain the same and undamaged. Smudging caused by such impurities can be avoided by daily surface cleaning.

MATERIALS CONTAINING ACIDS

During floor cleaning, the use of acid or alkaline detergents must be extensively avoided (e.g. Domestos, Bleach etc.). These chemicals can severely damage the abrasive layer of the surface. The damage to the abrasive layer (top layer) can increase dust levels and could make the shiny surface a really matte one.

DAILY CLEANING

As a result of the regular use and daily cleaning, the dry-shake hardener treated industrial floors will become more homogeneous in color and slightly shinier over time. On dry-shake hardener treated floors use only neutral (or close to neutral) detergents for cleaning purposes and such cleaning machine, which has non-abrasive disc. The cleaning of such floors should be ordered from specialized companies.

REGULAR MAINTENACE SEVERAL TIMES PER YEAR

Because of missing the daily regular cleaning, certain spots, contaminations can appear on the surface every 4-6 months that make the maintenance and renewal necessary. During these occasions, the specialist service provider companies will perfectly remove all impurities and they also treat the surface with impregnating materials. There are such impregnating materials in existence, which can provide even permanent solutions to substitute the annual maintenance tasks. Please contact us for suggestions regarding your daily cleaning and maintenance.

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DUROSTONE® design guide

SUGGESTED SURFACE HARDENER	DUROMETAL			DUROTOP KS			DUROTOP			DUROSTONE			DUROQUARTZ		
AREAS OF USE	Impact resistant, conductive, spark free floors			High level warehouses, logistics centers, heavy industry			Industrial plants Hardware stores, Cash&Carry stores			Factories, workshops, parking buildings, warehouses			Grain silos, exterior concrete areas, under resin based floor		
BÖHME ABRASION RESISTANCE CLASS (EN 13892)	A1,5			A1,5			A3			A6			A6		
UTILIZATION DUTY	EXTREME			EXCELLENT			HIGH			AVERAGE			WEAK		
CONDUCTIVE, ANTISTATIC	YES			NO			NO			NO			NO		
ESD	NO			YES			YES			NO			NO		
IMPACT RESISTANCE	EXCELLENT			GOOD			GOOD			AVERAGE			WEAK		
METHOD OF INSTALLATION	M	S	W	M	S	W	M	S	W	M	S	W	M	S	W
MATERIAL CONSUMPTION KG/M² Natural grey	6-8	6-10	10-18	4-6	4-10	10-18	4-6	4-9	10-18	4-6	4-8	10-18	3-4	3-5	–
Anthracite, Mid grey, Brown, Red	7-8	7-10	10-18	5-6	5-10	10-18	5-6	5-9	10-18	5-6	5-8	10-18	4	4-5	–
Light grey, Black, Terracotta	8	8-10	10-18	6	6-10	10-18	6	6-9	10-18	6	6-8	10-18	–	–	–
Yellow, Forest, Marine	–	8-10	10-18	–	6-10	10-18	–	6-9	10-18	–	6-8	10-18	–	–	–
Ivory, Salmon, Beige, White	–	–	10-18	–	–	10-18	–	–	10-18	–	–	10-18	–	–	–

PLUS version
In case of wet-to-wet application, only the Plus version of the dry-shake hardener should be used, which contains a special additive mixture too.
Advantage of the Plus version:

- Decreases the appearance of surface micro cracks
- Improves the workability
- Gives more isolated and more resistant surface

M	Manual installation
S	Screed machine installation
W	Wet-to-wet installation method
–	Not suggested

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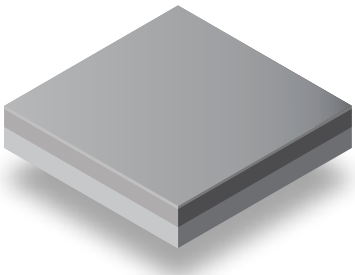
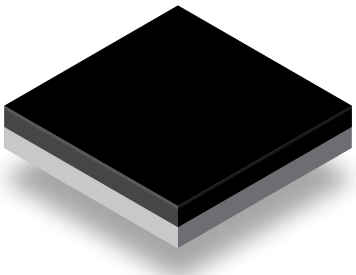
DUROSTONE®

color-card

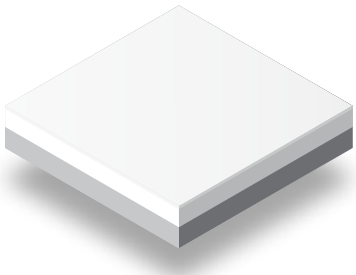
01 NATURAL GREY



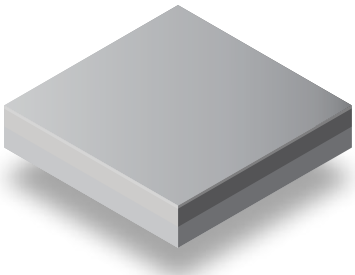
13 BLACK



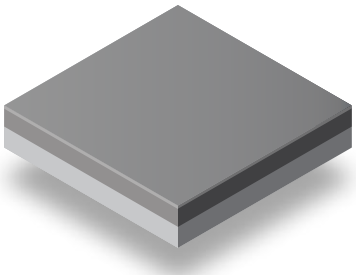
12 WHITE



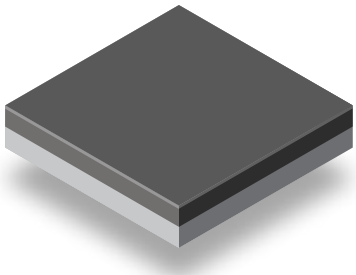
04 LIGHT GREY



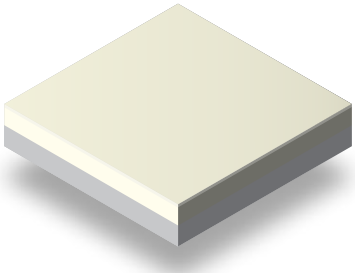
03 MID GREY



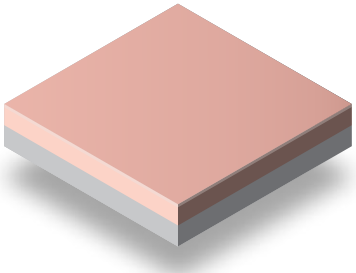
02 ANTHRACITE



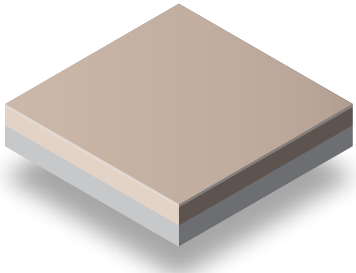
09 IVORY



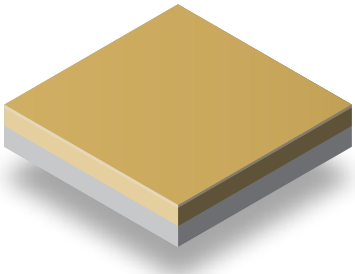
15 SALMON



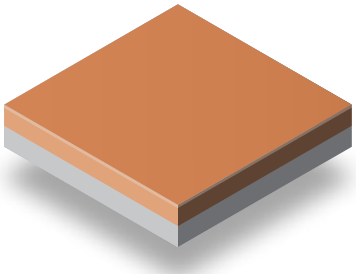
11 BEIGE



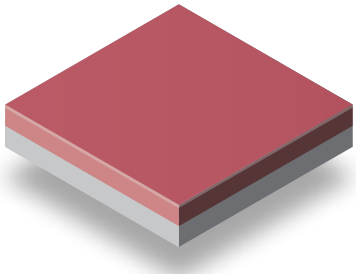
06 YELLOW



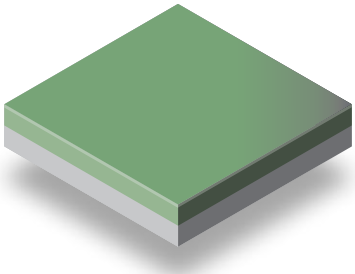
05 TERRACOTTA



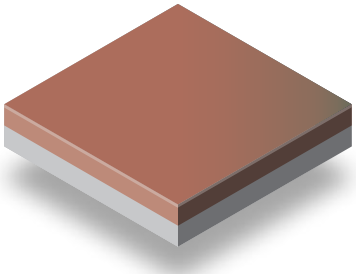
08 RED



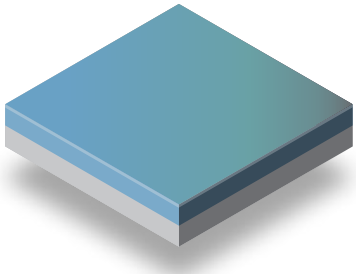
10 FOREST



07 BROWN



11 MARINE



Please note that the colors appear on the color-card may not perfectly match the color of the completed industrial floor.
In case of special color requirements, please contact us!

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Hard Solution