

ABS Duro Top 410

Industrial Renovation

DESCRIPTION

ABS DuroTop 410 is a pumpable, quick hardening, self-leveling screed for industrial flooring based on special cement, sand, extra binding agents and additives. Grain size is less than 1 mm.

The finished surface will vary in top structure and colour depending on the current raw materials, mixing and application conditions.

APPLICATION

- Industrial flooring
- Medium-heavy and heavy rolling equipment
- Intensive traffic
- Where extreme smoothness and flatness required
- For short renovation times.

The material does not normally require use of a dust binding agent.

SUBSTRATE

The material is recommended primarily for concrete substrates. Surface pull-off strength of the base should be at least 1.5MPa.

Shrinkage in newly cast concrete should have ceased, as cracking could otherwise occur. Movement joints should be opened if they have been covered. The material will not bridge movements in the substrate.

For double layer concrete plates, check the adhesion between the upper and lower concrete.

Bases with large cavities and unevenness should be leveled. Weak and flexible, asphalt type floor bases, which cannot hold the surface layer's shrinkage movements must be removed.

The temperature of the base during application should exceed +10°C. Local humidity shall provide a good drying environment.

LAYER THICKNESS

The material can be laid in layers of 4-15 mm on concrete. The recommended layer thickness is 6-8mm.

FINISH

Top Coat

ABS DuroTop 410 is ready for traffic loads without coating, but for aesthetic or chemical reasons it may need to be coated with a surface coating product. When coating, the surface of DuroTop must be dried before application and have achieved a surface strength which is required for the actual coating material.

Distell Parrow



Warehouse with ABS 410 floor for wear resistance

Water Damage Stability

The hardened material has good form stability in case of water damage. When the material is soaked through, its strength will decrease approx. 30% below the normal value, but will regain full strength when fully dried out.

Chemical Resistance

ABS DuroTop 410 has a chemical resistance similar to dense concrete. Floors which are continuously exposed to chemicals, oils, cutting fluids, cleaning fluids etc must be coated. Food industries, butchers, dairies, fish processing plants etc are other examples where a coating is recommended.

INSTALLATION

Pump the mixed material onto the floor, so that the material can flow together to form an even surface.

During application, smooth the newly laid material with a toothed trowel to remove froths in the surface and edges from the hose feed. The application widths are adjusted to the mixer pump capacity and the application thickness. Normally the width should not exceed ten to twelve metres. For wider areas use foam barriers. If you require an extremely smooth floor (super flat smooth-ness), it is especially important to keep the application width narrow.

Always be careful to seal sufficiently any drains before starting leveling work.

Semi-hardened material can easily be shaped or cut, so do not wait long to make any adjustments. Subsequent adjustments after the material has hardened will require advanced grinding equipment.

Floor Tolerances

In order to ensure a level floor the following should be undertaken:

- level survey of the existing floor
- level marking for the finished floor. For super flat floors, the height markings should be made in a grid with 1m spacing.
- the substrate should be leveled to the prescribed finished flatness

Quality Control, Strength

In order to check that the material has been handled correctly on the construction site measure the transverse tensile strength.

For bases which have hardened for one month at room temperature (+20°C), the transverse tensile strength shall be 3.0 MPa.

Preparation of the Substrate

The substrate shall be clean and free of dust, cement skin, grease or other impurities, which may prevent adhesion. All dust and debris should be vacuumed from the surface concrete.

Laitence of old coatings and contaminations should be removed mechanically e.g. by enclosed shot blasting, scarification or flame gunning.

Priming

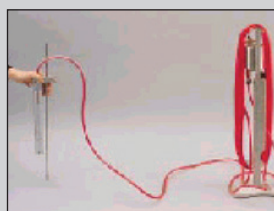
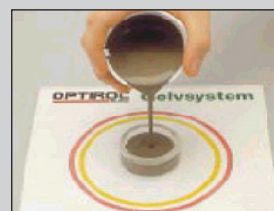
The base is always primed with ABS MD 16 primer. The primer is applied in two coats. The first coat is mixed at a ratio of 1:5, the second at 1:3. The primer should have dried and formed a film before DuroTop can be applied.

The temperature of the base must exceed +10°C during application. The base surface must be dry and the humidity shall offer good drying in the area, otherwise there is a risk that the DuroTop material will have pin holes or blister. If it takes longer than three to four hours for the primer to dry and form a film, this may be due to bad drying conditions. See data sheet for ABS Primer.

MIXING

The ambient temperature should be maintained between +10 to 25°C. The dry mix should preferably be kept at a room temperature before application. Very cold materials run the risk of certain additives failing to dissolve when mixed. Too high a temperature will change the flow properties of the material, e.g. gelling too fast.

Mixing is performed by using Norton approved mixer pumps. ABS DuroTop is mixed with 5 litres of clean water per 25 kg sack (20%). While mixing, the water content should be checked continuously by the flow ring test. When mixed correctly, the flow capacity should be between 155 –160 mm. When performing the flow test also check that the material is homogenous and free from separation. Never add more water than necessary.

**Adhesion****Levelling****Flow test****TECHNICAL DATA FOR ABS 410****Strength**

(stored at 23°C & 50% RH with 20% water):

Resistance to rolling steel wheel loads of 2000N and 10.000 cycles according to SS 923508:

- Volume of worn off dust, 14 days storage, dry surface < 1 cm³
- Volume of worn off dust after 7 days watering < 15 cm³
- Comp. strength > 35N/mm²
- Flexural strength 10N/mm²

Movement

- Shrinkage = 0.07%
- Expansion in water = 0.07%

Open times

- Foot traffic 2-4 hours
- Light traffic 24 hours
- Full traffic 1 week

Other

- pH value Approx. 11
- Flow rate (SS923519) 155–160 mm
- Bulk density 1600 kg/m³.

HEALTH & SAFETY

Contains quartz, dangerous to inhale. Contains cement. Moist cement can be dangerous in contact with skin (dried skin) and irritate the eyes. For a declaration of contents and other protective regulations, please request the Health and Safety sheet.

MATERIAL CONSUMPTION

1.6kg/mm/m²

PACKAGING

- 25 Kg bags on plastic, wrapped with 40bags/pallets (1Tonne)
- Big bags

STORAGE

The material can be stored for 6 months in dry conditions. Material which has been stored for more than 3 months must first be checked by the flow ring test before use.

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The information given is based on knowledge and performance of the material. Every precaution is taken in the manufacture of the product and the responsibility is limited to the quality of supplies, with no guarantee of results in the field as Norton Construction Products has no control over site conditions or execution of works.