

HARDONATE SLF

Self-Leveling Industrial Floor Topping

DESCRIPTION

HARDONATE SLF is a single component self-leveling cementitious floor topping for new and old industrial floors. **HARDONATE SLF** is manufactured from selected aggregates, cements and special polymers combined in a selected gradation with added dispersing and plasticizing agents so that the finished floor attains a uniform color and texture. The product has improved strength and is less permeable. The product is supplied in a ready to use form requiring only the addition of a small amount of water for easy mixing to produce a fluid consistency.

ADVANTAGES

- **Easy to use**
- **Excellent adhesion with parent concrete, positive grip with reinforcement**
- **High early and final strength**
- **Efficient restoration material**
- **Compensation for shrinkage and settlement in the plastic state**
- **Pre - packed system - overcomes the batched weight variations**
- **Prolonged service life**
- **Greater abrasion, wear& tear, and impact resistance**

FUNCTION

HARDONATE SLF is a non-shrink cementitious micro concrete for repairs and restoration of concrete floors as a self-level topping. This can be applied in thickness ranging from 3 mm to 20 mm.

USES

HARDONATE SLF is compatible for use with different concrete grades and can be used for slim sections also.

HARDONATE SLF is economical flooring solution for industrial floors where a durable, smooth and leveled floor is required.

HARDONATE SLF is suitable for use in textile industries, jute mills, pharmaceutical and chemical plants, cement and tobacco factories, ware houses, railways stations, sport facilities, super markets, parking area, workshops, airports, refineries, power stations.

TYPICAL PHYSICAL PROPERTIES

Color	Grey Powder
Water addition	4.75 – 5.25 L per bag
Application temperature	5°C to 40°C
Initial Set	75 minutes @ 20°C
Compressive Strength	58 Mpa at 28 th Day
Flow Property	975 mm /20 Second
Wet Density	2265 kg/m ³

METHOD OF APPLICATION

SURFACE PREPARATION

The substrate must be sound, firm and clean, free of oil, grease, loose particles and cement laitance, old layers of paint or other contaminants.

Square cut all edges to be repaired to a minimum depth of 10 mm, perpendicular to the surface followed by the removal of all unsound material.

The rest of the repair area must then be broken back to a depth in excess of 50 mm. Never feather edge the product. When using compressed air for cleaning, the air must be clean and oil free.

Assess the initial adhesion or the effectiveness of the degreasing by means of pull-off tests.

Surface saturation is carried out at least four hours prior to placing **HARDONATE SLF**. This is achieved by sprinkling the clean water. It is important that all excess water is drained with no free water remaining on the surface prior to the application of **HARDONATE SLF**.

The old concrete surface can optionally be coated with **MITCHBOND EP** epoxy-bonding agent just prior to pouring **HARDONATE SLF** for improved bond strength. If this option is used, the substrate must remain dry. All exposed reinforcing bars must be primed by applying **PRIMER ZR**.

MORTAR PREPARATION

A suitable size mixing vessel that will accommodate full bag lots using a pan mixer for forced action mixing is recommended. Add approximately 2/3 of the required mixing water and while stirring, slowly add the powder and mix until lump free. Add the remainder of the water and mix for 3 to 4 minutes until the mortar is again completely homogeneous and lump free.

For small batches a heavy duty industrial drill and spiral paddle stirrer that operates around 400 to 500 r/min can be utilized. In either event tumble type mixers are not permissible. For small mixes with a drill and paddle the complete water addition must be used at once. Always add powder to water.

It is recommended that the mixed **HARDONATE SLF** be passed through a suitable coarse screen to identify any unmixed material prior to placing or pumping.

CAUTION: High-speed mixing entraps an excessive amount of air and therefore should be avoided.

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APPLICATION

Mixed **HARDONATE SLF** can be poured on to floor by pump and manually for leveling. This should be done as a continuous operation and must take place within 30 minutes of mixing. Thereafter the product characteristics will change, affecting its fluidity and expansion properties.

The pump and pipeline must be thoroughly lubricated by pumping a rich cement slurry or mortar through the system, which is then discarded and immediately followed by pumping the product.

Always pour or pump from one side only to avoid air entrapment.

In rapid drying conditions caused by high winds or direct sunlight additional precautions should be included, like sealing with polythene sheeting. This may include damp hessian behind the sheeting to prevent moisture loss.

In cold conditions, the repaired area must be protected from freezing.

Immediately after spreading, **HARDONATE SLF** should be rolled with a spiked roller to remove air bubbles.

If required steel trowelling may be carried out about 60 to 70 minutes after the placement of **HARDONATE SLF**. The application of tiles, epoxy floorings or other floor coverings are possible after 24-48 hours depending upon the thickness of **HARDONATE SLF** applied, temperature and site conditions.

CURING

No water and chemical curing is required for **HARDONATE SLF**. Protect from rain, moisture and humid air for three days so that it dries out completely.

PACKAGING

HARDONATE SLF is available in 25 Kg polypropylene bags

YIELD

25 kg of **HARDONATE SLF** powder mixed with 5.0 liters of water yields approximately 12 liters.

CONSUMPTION / COVERAGE

27 SFT / 25 Kg bag @ 5 mm thickness

SHELF LIFE

HARDONATE SLF has to be used within 6 months from the date of manufacturing. It has to be stored in original bags to protect from dampness.

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

SAFETY

Avoid contact with eyes or sensitive skin. Wash thoroughly with plenty of water if eyes or sensitive skin gets affected. Wear dust mask and safety goggles for protection.