

PRODUCT DESCRIPTION

PlekoGrout SF is a precision, high-performance, sand-free cementitious grout specially formulated for post-tensioning and cable duct grouting applications. Designed for use where a high degree of fluidity and complete void filling are required, it offers extended working time, high early and ultimate strength, and is shrinkage compensated to prevent cracking or settlement. PlekoGrout SF is chloride-free and ideal for use in structural grouting and anchoring applications where corrosion protection and long-term durability are essential.

It is composed of hydraulic binders and special chemical additives. It is easy to use by just adding water, improving on-site quality control.

USES

PlekoGrout SF is suitable for:

- Grouting of post-tensioning ducts in prestressed concrete structures
- Anchoring of steel cables, tendons, and bolts in ducts
- Precision grouting in vertical and horizontal ducts in bridges, tunnels, and industrial structures
- Applications requiring sand-free, highly fluid grout with extended pumping distance
- Slurry grouting for consolidating loose soil in geotechnical and tunneling works
- Structural grout medium for injection-bored micropiles

APPROVED SUBSTRATES

PlekoGrout SF can be applied into properly cleaned and prepared ducts, steel sheathing, and sound concrete elements.

PACKAGING

20 kg in multiply paper bag.

PROPERTIES

- **High early and ultimate strength**
- **Sand-free formulation ideal for narrow ducts and injection applications**
- **High fluidity with extended workability for ease of pumping**
- **Shrinkage compensated and non-bleeding**
- **Excellent bond to steel and concrete**
- **Chloride-free for enhanced corrosion protection**
- **Compatible with cable grouting equipment**

TECHNICAL DATA

Appearance	Free-flowing light grey powder
Specific Gravity (Kg/L \pm 0.05)	2.05
Water Demand (%)	32.5 - 37.5
Expansion (%)	Nil
Chloride Content	< 0.05
Flowability (Flow cone method)	> 25 sec
Compressive Strength* (N/mm ²)	
7 days	\geq 30 MPa
28 days	\geq 55 Mpa

* EN 445, EN 196-1, ASTM C-109; ASTM C-940;

YIELD

One 20kg bag mixed with 6.5 - 7.5 liters of potable water will yield approximately 13.0 - 14.0 liters of grout.

Manufacturer does not warrant square meter coverage, which can vary greatly according to application techniques.

INSTALLATION

SUBSTRATE PREPARATION

Surface must be sound, clean, dry, free of bond-inhibiting materials such as paint, grease, oil, efflorescence, form release agents and curing compounds. It should have been sufficiently cured in a way that any shrinkage has already occurred.

Saturate the substrate with clean water to provide a saturated surface dry condition, if possible soak surface for few hours before application. Any surface water should be removed using an oil free compressed air.

MIXING

Use a clean container free of all foreign substances for preparing and mixing material. Use a heavy duty electric drill and mixing paddle; forced action mixer or pan mixers can also be used. Add powder to the water in small increments while mixing thoroughly to achieve lump-free consistency. Avoid working excessively to prevent air entrapment. Let mixture set for 5 minutes and re-temper. If needed add water (within limits given) to adjust consistency. Do not add water once the mixed mortar starts to harden. Do not mix less than 1 bag or attempt to mix by hand. The grout should be placed within 20-30 minutes of mixing.

APPLICATION

Ensure formwork is secure and watertight to prevent movement and leaking during placing and curing. Sufficient grout must be prepared before starting. Pour PlekoGrout PTG into the prepared area in a way that the grout has the shortest distance to travel. Ensure that air displaced by the grout is allowed to escape. Pour the grout continuously maintaining sufficient hydrostatic head of pressure to keep the mortar flowing. For large areas it is recommended to use pumping equipment's.

LIMITATIONS

Apply only to unfrozen surfaces above 4 °C (40°F). Maintain minimum 4 °C (40°F) ambient temperature for 24 hours after application. For ambient temperatures above 35°C, use cool water for mixing to maintain mortar temperature below 30°C.

Do not mix with any additive or product unless recommended by Pleko.

Pleko bears no responsibility for the defects due to the improper or non-recommended use of the product.

CLEANING

While still fresh, soluble in water. Clean all equipment with water immediately after use. After hardening, tools should be cleaned mechanically.

STORAGE

Store in cool, dry, well-ventilated area, protected from freeze, heat and direct sunlight and at a temperature between 4°C (40°F) and 38°C (100°F), in tightly sealed original container off the ground. Storage time must not exceed one year.

HEALTH AND SAFETY

Avoid contact with eyes and skin. Prevent inhalation of dust.

The product contains cement powders which, when mixed with water, release alkalis that could be harmful to the skin. It is preferable that the application be done in a ventilated area, and to wear protective gear for hands, eyes and respiratory system and to avoid breathing of the dust. Splashes on the skin should be washed away by cleaning with soap and water. In case of contact with eyes, wash thoroughly with clean water. If swallowed, do not induce vomiting, in both cases seek medical attention.