

ACS PURCRETE S&TF[®]

A New-Generation High Performance Polyurethane Floor Coating Material



■ Description

ACS PURCRETE S&TF[®] is a polyurethane resin based three component solvent free non- joint colored floor covering material. Developed specially for areas requiring high performance. May be used on concrete and carbon steel surfaces. Has perfect adherence to prepared steel-reinforced concrete surfaces. It is resistant to high load and sudden temperature changes. Has wide range of chemical and solvent resistance. Suitable for stretchable by structure surfaces.

■ Places of use

- On surfaces used wet and dry, for flat and smooth look on surfaces under high traffic or chemical load which require easy cleaning;
- In medical industry and food production and processing, in industrial kitchens.
- Cutting rooms of chicken farms, slaughterhouses.
- Production and packaging departments of fish processing plants.
- Cold storage depots.
- In all wet processing areas.
- In textile, apparel, cosmetics, electrical parts production areas, in stores.

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- Chemical production plants, storage areas.
- Beverage production facilities.
- In other industrial production facilities.
- Also on ships, boats, means of sea transportation, wharfs.
- In the living spaces of ships, kitchens, engine rooms, decks.
- In areas of heavy cargo traffic on sea vehicles, ramps, parking areas.
- On scaffolds, concrete, steel and wooden surfaces or joints.

■ Advantages

- High impact, load and thermal shock-resistant.
- Wide range of chemical resistance (organic and inorganic acids, alkalis and salt-tolerant).
- Does not crack on stretchable floors.
- Easily cleanable hygienic surface or
- Decorative surfaces with smooth colored mosaic look or
- Suitable for production of slip resistant floor with aggregates of different thickness.
- Can be applied in high thickness in one go.
- Odorless application.
- Maintenance friendly.
- Belongs to low flammability group of materials.

TECHNICAL CHARACTERISTICS

| | |
|-------------------------------------------|-----------------------------------------------|
| Appearance | Semi-lustrous |
| Color | Wide range of colors (apply for consultation) |
| Density | 1,80 ± 0,05 kg/lt (as a set) |
| Mixing ratio | 10:2:10 (A:B:C - by weight) |
| Structure solid | %100 (A+B) |
| Service temperature | -45°C - +90°C (dry heat till +120 °C) |
| Mix Life (+10°C) (+30°C) | 35 minutes 25 minutes |
| Waiting between layers (+10°C) (+20°C) | 24 hours 12 hours |
| Opening to light traffic | 12 - 24 hours / at 20 °C |
| Full cure | 3 days / at 20 °C |
| Shore D Hardness | 79 - 81 |
| Pressure resistance | 50 N/mm ² (full cure) |

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|---------------------------|-------------------------------------|
| Tensile strength | 9 N/mm ² (full cure) |
| Flexional resistance | 20 N/mm ² (full cure) |
| Dynamic E-Modulus | 12000 N/mm ² (full cure) |
| Taber Abrasion Resistance | 110 mg (full cure) |

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|-----------------------------------------------------------------------------------------------------------|
| Many organic solvents, including aliphatic and aromatic hydrocarbons and alcohols. |
| Mineral oils, motor, petrol and gas oil |
| Oils and sugar. |
| Dilute organic acids, acetic acid (30%), formic, citric and uric acid. |
| Alkalines, including potassium hydroxide at 50% concentration. |
| Diluted mineral acids including sulfuric acid (30%), phosphoric acid (<50%) and hydrochloric acid (<35%). |

APPLICATION

In order to keep features and high performance of **ACS PURCRETE S&TF®** product on the same level please apply only to master-builders approved by **ACS A PLUS CONSTRUCTION SOLUTION YAPI A.Ş.**

APPLICATION PROCEDURE/SURFACE PREPARATION

Application surface must be clean and steady. Concrete or cement screeds: Prior to application concrete surfaces in contact with soil should be insulated from water and water vapor. Should be cleaned from loose particles, oil and paint residues, cement grout. The compressive strength of the concrete floors ready for application should be 25 N / mm² and shear test and pull-off tests' results should be minimum 1.5 N / mm². The concrete must be at least 28 days, the moisture percentage of the concrete surface onto which substance will be applied should be 5-6%. All loose particles should be cleaned from cement grout and surface should be defatted. Damaged surfaces should be repaired beforehand. Residues, rough and shiny screed should be cleaned with tools such as sand blaster, surfacer and the surface should be roughened and wiped. The entire surface must be cleaned from dust with an industrial vacuum cleaner. After preparation of the surface during priming follow the surface preparation rules.

METAL SURFACES

Oil and grease on the new metal surface should be cleaned off with suitable detergent; salt and other impurities should be washed off with high pressure clean water. Run-down surfaces with old paint should be mechanically cleaned if possible at level Sa 2 minimum, but preferably at level 2½ according to ISO 8501 standard level St 2- St 3. As an alternative to abrasive rasp a water jet can be used to obtain the surface on which desired adhesion can be achieved. After using water jet solid paint layer with rough surface should be seen. As excessive amount of salt accumulated in thick rust plates firstly dry abrasive scraping

then washing by water jet should be done and then it is recommended to perform abrasive scraping at the desired level.

RESISTANCE

It is mechanically resistant to medium and high mechanical power. Has perfect point impact resistance. In terms of temperature 3 mm thick layer of **ACS PURCRETE S&TF®** is resistant to constant contact with 60 °C heat. Thickness increase increases thermal strength. Service temperature range: from -45 °C to max +90 °C. Resistant to + 120 °C at dry temperature in short contact (same chemical and mechanical effect).

AMBIENT CONDITIONS

- Relative humidity of air should be maximum 80%, application temperature (environment and surface) should be between + 10 °C and + 30 °C.
- During application in open spaces make sure it hasn't been raining for 24 hours before application and 24 hours after application.
- Surface temperature should be 3 °C above the dew point. (Please call our company for the Ambient temperature- Ambient Moisture-Dew Point table.)

PREPARATION OF MIXTURE

As **ACS PURCRETE S&TF®** is a three-component product, it should be prepared at the specified mixing ratio in the amount which can be consumed during mixture usage time. In order to obtain a homogeneous mixture make sure that the product temperature is not less than 15 °C. Component A must be quickly mixed with a mechanical stirrer according to the mixing ratio then C component (aggregate) should be added. After thorough mixing of the component hardener (component B) should be added. The whole mixture should be mixed with a mechanical stirrer for at least 3 minutes until homogeneous and then rest for 2-3 minutes. Make sure that the prepared mixture is consumed at the mixture lifetime.

MIXING RATIOS

| ACS PURCRETE S&TF® | Component A | Component B | Component C |
|-----------------------|--------------|-------------|-------------|
| Mixture Amount | 10 kg | 2 kg | |
| Mixture Density (Set) | 1,80kg/litre | | |

APPLICATION ON THE SURFACE

The mixture which is ready for application is spread to the surface at a desired thickness with the help of a notched trowel or trowel. For the right performance of the product it should be applied with at least 3 mm thick layer (must be applied with

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consumption rate 5-6 kg / m²). In order to determine the thickness to be applied according to the place and purpose of the product please consult **ACS A PLUS CONSTRUCTION SOLUTION YAPI A.Ş.** Technical team. In a standart application go over the surface with a spiked roller after application for air release. Can be applied up to 3 cm thickness while applied with the aim of eliminating undulations on the surface and surface correction. Polyurethane mortar can be made with an additional 50-100% addition of component C. During applications in open areas the product must be protected from harmful influence of UV radiation. For this purpose UV-resistant aliphatic polyurethane paint, **ACS POLYURETHANE TC 470**, should be applied with a consumption of 200 gr/m².

APPLICATION METHOD

On concrete surfaces or cement screeds:

Undercoat: In case of application on very absorbent surfaces; Concrete surfaces ready for application are impregnated with **ACS EPOXY PRIMER-MAX** (200-300 gr/m²). Application can be done by roller or airless spray. After the application the surface will look like wet concrete. After the primer application imperfections are repaired and filled with epoxymortar.

Preparing Layer: After priming **ACS EPOXY PRIMER- MAX** is applied by repelling, roll or airless spray with 300-500 gr/m² consumption.

Coating: **ACS PURCRETE S&TF**® is applied with a notched trowel or master depending on the desired thickness after at least 6 hours and not more than 2 days after application of undercoat. For 1 mm thick layer consumption is 1,80 kg/m².

On steel surfaces: Surface information / after surface preparation process described in the steel surfaces category does not require priming on the steel surface, it can be applied direct-lyon the surface at the projectedthickness.

For non-slip surface: To get a slightly bumpy surface/'orange peel' look: Immediately after application of **ACS PURCRETE S&TF**® when the surface is still wet spread on the selected aggregate surface depending on different thickness suitable for the desired texture or depending on desired level of non-slip-periness, and go over the surface with a spiked roller to distribute the aggregate on the coating. (Consult **ACS A PLUS CONSTRUCTION SOLUTION YAPI A.Ş.** for the right choice of aggregate) To get a slightly bumpy surface: 3/2 of the required consumption according to the desired thickness is applied first, when the surface is still wet, 1.0 - 1.8 mm quartz is spread on the surface until saturated (7-8 kg / m²). The next day the non-adherent aggregates are swept/ vacuumed from the surface and 3/1 of the desired consumption is applied again to the surface.

CLEANING OF TOOLS

Tools and equipment used after application can be cleaned with cellulosic or epoxy thinner. Once cured **ACS PURCRETE S&TF**® scan only be removed by mechanical means.

PACKAGE:

Set of **ACS PURCRETE S&TF**®; 22 kg which contains of a bucket of A component with net weight 10 kg , gallon net weight 2 kg of B component and a bucket with 10 kg of C component.



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STORAGE

Should be stored in a cool and dry environment in unopened original package at +10 °C + 25 °C temperature protected from the freezing. In short-term storing, maximum 3 palletes can be stowed on top of each other and delivery has to be according to first in first out system. In long-term storing, the palletes must not be stowed on top of each other.

SHELF LIFE

In unopened original package under suitable storage conditions 1 year for A and C compounds, 6 months from the date of production for B compound.

SAFETY

In accordance with Occupational Health and Safety Rules work clothes, protective gloves, goggles and masks should be used during the application. Due to the irritating effects of uncured materials, the components should not be allowed to come into contact with the skin and the eye. In case of contact, immediately wash with plenty of water and soap. If swallowed, seek medical advice immediately. Food and beverages should not be left at the application areas. Keep out of reach of children. Conform to Safety Data Sheet of the product which is prepared in accordance with EU directives.



□ Responsibility

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. ACS A PLUS CONSTRUCTION SOLUTION YAPI ANONİM ŞİRKETİ is only responsible for the quality of the product. ACS A PLUS CONSTRUCTION SOLUTION YAPI ANONİM ŞİRKETİ is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones (06/2019)