Stroton Yapı Kimyasalları ve Yalıtım Tic. Ltd. Şti. Mimarsinan Organize San. Bölgesi 19.Cad No:31 Melikgazi - Kayseri/ TÜRKİYE

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## STROTON CRYSTALIZED

# TECHNICAL SPECIFICATION



**PRODUCT DESCRIPTION:** It is a cement-based, crystallized powder mortar that is applied positively and negatively, activated by water and moisture, composed of chemical substances and specially selected fine aggregate. Chemical substances in its structure penetrate deep into the concrete by reacting with the moisture and free lime contained in the concrete. It forms crystals that do not dissolve in capillary spaces and pores.

#### **THINNING**

With brush
In applications
With maximum 35-40%
clean water
It is thinned.

### **CONSUMPTION**

**Sherbet Consistency:** Positive water pressure 1 - 2 kg / m2 (2 layers)

Negative water pressure 2 kg / m2 (2 layers) **Plaster:** 2 - 3 kg / m2 (in 5 mm thick plaster) **Dry Sprinkle:** 3 kg / m2

#### **STORAGE**

It can be stored for 12 months on the pallet in a 10-fold stacked in a dry and unopened package.

#### **PACKAGING**

In 20 kg craft bags

# SCOPE OF APPLICATION

# **Negative Water Pressure:**

- ❖ Internal insulation of basement walls and foundations,
- **External insulation of water tanks,**
- ❖ In retaining walls,
- ❖ In tunnels and subways,
- ❖ In floors and horizontal joints, ❖ It is used in elevator pits.

# **Positive Water Pressure:**

- ❖ In water tanks,
- ❖ In swimming pools,
- ❖ In the insulation of foundation and shear walls,
- ❖ In irrigation channels,
- ❖ In concrete pipes, ❖ In dams,
- It is used in cisterns.

## TECHNICAL SPECIFICATIONS

**Appearance:** Gray fine powder

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**Powder Density:** ~ 1,20 kg / lt **Resting Time:** 3 - 5 minutes

Pot Life: 20 minutes

**Application Temperature:**  $+ 5 \circ C$  to  $+ 35 \circ C$ 

# **ADVANTAGES**

- ❖ It is effective against both positive and negative water pressure.
- ❖ It integrates with the surface it is applied on, penetrates into the surface, provides a long-term and complete waterproofing.
- ❖ It provides impermeability by filling the capillary voids in the concrete with its crystallized structure that does not dissolve in every contact with water.
- ❖ It is not toxic. Ideal for drinking water tanks.
- STROCHEM Crystalline dry sprinkling application is an extremely easy and effective method against the insulation problem that may occur in horizontal work joints.
- **!** It protects concrete and reinforcement iron by preventing corrosion.
- **!** It does not need to be protected with materials such as insulation boards before filling.
- ❖ It is permeable to air and water vapor, the structure breathes.
- **!** It can be applied to uncured, fresh concrete.
- It is resistant to freezing thawing cycle.

# **SURFACE PREPARATION:**

- The application surface must be cleared of materials that prevent adhesion such as dust, oil, tar, tar, paint, silicone, curing material, detergent and mold oils.
- ❖ Weak parts of the concrete should be repaired, the plasters that are not adhered well should be removed, the surface should be made smooth and solid, static cracks in the building should be repaired with STROCHEM 212 REPAIR MORTAR, STROCHEM WATERPROOFING REPAIR MORTAR.
- The application surface must be saturated with water and must be kept moist during application.
- Vertical corners should be beveled properly.

# PREPARATION OF THE MORTAR

- ❖ 20 kg of STROCHEM Crystallized Waterproofing Material is mixed with 35-40% water for brush application and 30-35% water for application with a trowel, preferably with a low-speed drill until there is no lump.
- ❖ Always mix the water by adding it into the STROCHEM Crystallize.
- ❖ In pot the mixture should be consumed within 20 minutes.

## APPLICATION INFORMATION

➤ There are 4 different application methods:

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- **1. Sherbet (slurry):** STROCHEM is applied on the crystallized moistened surface with a brush in two layers perpendicular to each other. The second layer is applied within approximately 3-4 hours when the first layer is hardened but not fully dried yet.
- **2. Plaster**: For very old concrete, brick wall or briquette surfaces, the first layer of Strochem crystallization can be done by adding it into a plaster of 5 10 mm thickness. On top of that, the second layer of STROCHEM can be applied by rubbing in the consistency of crystallized syrup.
- **3. Dry Sprinkle:** It is applied by sprinkling in powder form on horizontal floors.
- **4. Admixture:** It can be used as admixture by applying 7 kg of Strochem-303 to 1 m3 volume, or in other words, a bag is suitable for 3 cubic meters of concrete mixture.
- Whichever of these three methods is used, curing with water after application is extremely important. After the application, the STROCHEM Crystallizer should be prevented from drying immediately and it should be kept moist for about a week. For this, it is beneficial to spray water or lay damp sacks as in normal concrete curing process.
- Some of the application methods are preferred depending on whether the structure is new or

old:

# 1. When applying to new structures, grout or dry sprinkle system should be preferred:

For the insulation of water coming from the ground, STROCHEM Crystallized can be applied by sprinkling the leveling concrete surface in powder form or by applying it in a slurry consistency just before casting. In this way, the application prevents water from infiltrating, preventing flooding of the floor. If possible, waterproofing should be done from the outer surface (from the direction of the water), if possible, on the foundations that screen

over lean concrete, and if not, it should be done from the inner surface.

- In cold joint applications caused by pauses between concrete pouring during construction, it can be applied by sprinkling in the form of powder horizontally and by spreading in a slurry consistency vertically.
- 2. When applying to old buildings, grout or plaster system should be preferred:

# Concrete curtains with water leakage or exposed to strong water pressure:

- If there are holes on the surface with strong water flow, first of all these holes are enlarged with a drill or a chisel to reduce the water pressure, so that the water can flow freely.
- If there is a leak at more than one point, the water is allowed to flow by drilling a hole at the

bottom of the wall.

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When waterproofing on very old concrete, brick, briquette STROCHEM is applied by joining into crystallized plaster.

#### POINTS TO CONSIDER

- Avoid application at temperatures below  $+ 5^{\circ}$ C and above  $+ 35^{\circ}$ C.
- Avoid application in frozen areas, where there is a risk of freezing within 24 hours or in areas open to direct sunlight and wind.
- ➤ Do not add powder and water to the expired mortar. Stir frequently to maintain the consistency of the mortar during application.
- Structures such as water tanks should be filled with water 24 hours after STROCHEM Crystallized top coat application, as water pressure accelerates crystal formation and penetration of the STROCHEM Crystallize into the concrete. A complete waterproofing is usually obtained after a period of 5 7 days after application. Landfill is done at the end of this period.
- The degree of crystal formation and penetration depends on the density of the concrete and the absorbency of the surface.
- The crystals formed by the STROCHEM Crystallizer can create a very not decorative appearance. To prevent this, plaster should be applied on the last layer of STROCHEM Crystallized when it is still wet and the paint should be applied on the plaster. If ceramic or tile application will be made, ceramic adhesive should be applied directly on the freshly applied STROCHEM Crystallize. If these applications will be applied on the cured STROCHEM Crystallize, the crystals on the surface should be wiped with diluted hydrochloric acid or bleach, then plaster should be applied on it. This wiping process only destroys the crystals on the surface and does not damage the crystals that have penetrated into the concrete.

# **HEALTH AND SAFETY**

As with all chemical products, contact with food products, skin, eyes and mouth should be avoided during use and storage. During the application, work clothes, protective gloves, goggles and masks in accordance with work and worker health rules should be used. If swallowed by accident, consult a doctor. In contact with skin, wash with plenty of water. It should be stored in places out of the reach of children.