

# TECHNICAL DATA SHEET

## IZOLSAN HF

### *Single-component quick-setting grout mixture for installation of duct covers*

#### DESCRIPTION

Izolsan HF is cement, quick setting liquid mortar suitable for filling in drains in thickness between 10 and 80 mm. It is used for filling in sewage covers and other elements, where quick renewal of full operation is required. It is also used for small repairs of concrete surfaces.

#### ADVANTAGES

Izolsan HF is delivered in a package as a dry prefab mixture, which is to be mixed with water.

- Quick strength build-up – it can carry load already after 30 minutes
- Non-shrinkable
- Highly liquid
- Very strong
- Does not contain chloride
- Single-component, only water is added
- Exceptional grip to concrete and steel without special adhesive bridge
- Highly resistant to frost
- Highly resistant to chemical defrosting agents
- Low absorption
- Highly resistant to abrasion

#### DESCRIPTION

Grout Izolsan HF is delivered as ready dry mixture, which is to be mixed with batch water in the given ratio. Material is based on Portland cement basis, separated aggregate and special additives.

#### PROPERTIES

Colour	Grey
Density	
powder	App. 1500 kg/m <sup>3</sup>
Set mortar	app. 2100 kg/m <sup>3</sup>
Compressive strength	
after 30 minutes	> 9 MPa
after 60 minutes	> 11 MPa
after 24 hours	> 35 MPa
after 28 days	> 60 MPa
Tensile strength in offset	
after 24 hours	> 3 MPa
after 28 days	> 6 MPa
Grip to concrete	> 1.5 MPa
Flexibility module	> 25 GPa
Thermal expansion coefficient	10.5 - 11.5 [10 <sup>-6</sup> *K <sup>-1</sup> ]
Resistance to chemical defrosting agents (pursuant to TKP MDS, chapter 18 method C)	Waste < 50 g/m <sup>2</sup>
Workability time	max 3 minutes
Batch water	0,215 l/kg

#### INSTRUCTIONS AND DATA FOR USE

##### Sub-base preparation

Contact surfaces have to be cleaned of free particles and concrete contaminated by oils and the surface needs to be moistened thoroughly.

##### Mortar preparation

Grout is prepared by thorough mixing of relevant volume of dry mixture and batch water using a mixer. Mix for 1 to 3 minutes and then use immediately.

**The ratio for mixing the dry mixture and batch water is always stated on the label placed on the bag.**

##### Workability time

It depends on temperature and construction. When the temperature of the air, construction and batch water is 20 °C, then the workability time is max. 3 minutes.

**During application, mix only volume that can be able to process in the given time period.**

**Temperature of batch water changes workability time significantly.**

**When temperature of batch water is higher than 20 °C and lower than 25 °C, workability time is approximately one half shorter. When temperature of batch water is higher than 25 °C, immediate reaction (setting) occurs. Batch water in temperature lower than 20 °C prolongs the workability time.**

Repairs cannot be realised, when temperature of the air or construction drops below +0 °C or exceeds +35 °C.

##### Application

Mixed mortar is poured into the hole from one side so that air or water used to moisture the surface do not get trapped inside. The most recommended is pouring the mortar in the shortest direction.

Izolsan HF can be applied in layers with thickness of up to 80 mm per layer.

When repairing concrete surfaces, you have to adhere to the minimum thickness of the layer. This minimum is 30 mm in case of surfaces subjected to high load and 10 mm in case of surfaces subjected to minimum load.

##### Treatment

Repairs must be protected against direct sunlight and warm wind for at least 24 hours. During this time (unless the repaired surface is covered by another layer) it is important to keep the repaired areas moist (not excessively wet though), including concrete around the repair using for example common sprinklers.

##### Restrictions

Grout Izolsan HF must not be used when temperatures of air of the base drop below +0 °C and keep on falling and in temperatures exceeding 35 °C. Temperature of batch water must be lower than 25 °C.

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IZOLSAN HF  
14/04/2014  
Site 2/2

## CONSUMPTION

Izolsan HF 20 - 21 kg/m<sup>2</sup>/cm thickness

## PACKAGING

Izolsan HF 25 kg bags (1 t pallets)

## STORAGE AND TRANSPORT

Mortar needs to be stored in dry and ventilated room. Product must be transported by covered means of transport.


## HEALTH AND SAFETY PRECAUTIONS

**Izolsan HF** contains cement powder and admixtures that irritate eyes, air passages and skin. Prevent inhaling the dust. The product is subject to the warning symbol **Xi – Irritant**. Mixed mortar is highly alkaline. During application, prevent eyes and skin from being contaminated. Standard protective gear should be used. Do not drink, eat or smoke when working with the product. When working, adhere to toe safety rules and health precautions valid for work with cement and calciferous materials. In case of contact with the skin, wash immediately using large volume of water and soap. When eyes are contaminated, wash out thoroughly and immediately and seek medical help. When swallowed incidentally, seek medical help immediately – do not **induce vomiting**

Material Izolsan HF is non-flammable

For further information, refer to safety data sheet.

Production is subject to integrated quality assurance system pursuant to ČSN EN ISO 9001:2009 a 14001:2005.

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10 <b>EN 1504:2006</b>
Izolsan HF - CC mortar, static function pursuant to repair regulations 3.2 and 4.4, class R3
Compressive strength: ≥ 25 MPa Share of chloride ions: ≤ 0.05% Bond strength: ≥ 1.5 MPa Carbonisation resistance: ≤ d <sub>k</sub> - compliant Flexibility module: ≥ 15 GPa Fixed retraction/expansion: ≥ 1.5 MPa Dangerous material in compliance with 5.4 Reaction to fire: class A1

### Important Notice

In case of any discrepancy between the Technical Sheet and the packaging, the data indicated on the packaging always apply. Products of the Redrock Construction s.r.o. Company are subject to a warranty covering the material and the manufacturing, while their sale is governed by commercial terms. Although the Redrock Construction s.r.o. Company makes certain that all the advice, recommendations, specification or information that the Company provides are correct and accurate, since the Company has no direct and permanent control of where and how its products are being used, the Company cannot accept any responsibility for the usage of its products. The new issue of Technical Sheet cancels the validity of the previous one.