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YAPI KİMYASALLARI SAN. VE TİC. LTD. ŞTİ.

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BETTOPUR CRACKSEAL

Polyurethane Based, Two Component, Slow Reacting, Highly Flexible Injection Resin

MATERIAL DESCRIPTION

BETTOPUR CRACKSEAL is used for filling/sealing and flexible bonding/gluing of joints, dilatations, cracks and gaps in reinforced concrete, brick or natural stone buildings and other engineering structures. It is adapted for hoses embedded in concrete structures.

TECHNICAL SPECIFICATIONS

The data presented below are laboratory data. They may vary in practice due to heat exchange between resin and concrete, surface properties of concrete, humidity, pressure and other factors.

Reaction Data (typical values):

Mixture Ratio A : B		**Volumetrically 1 : 1**		
Initial Temperature		6 °C	15 °C	25 °C
Viscosity Inside Following the Mixing Process	mPa*s	290 ± 50	170 ± 40	150 ± 30
At 1mm Equivalent Temperature Crack 1000 mPa*s Achieving Viscosity	min.	55 - 95	50 - 85	55 - 95
Gelling Time	clock	15 ± 2.0	14.5 ± 1.5	11 ± 1.0
Foaming Factor		1.0	1.0	1.0

Initial Temperature		5 °C	18 °C	23 °C
Application time of the packaging (Pro-double can)	min.	30 - 40	25 - 35	17 - 27

Material Data:

		Bil. A	Bil. B	Mixture A+B	Determination
Method					
Density at 25°C	kg/m3	985 ± 15	1092 ± 15	-	DIN 12791
Color	-	honey color	brown	-	
Viscosity at 25°C	mPa*s	285 ± 50	14 ± 3	150 ± 30	EN ISO 3219
Viscosity at 15°C	mPa*s	550 ± 60	20 ± 5	170 ± 40	EN ISO 3219
Viscosity at 6°C	mPa*s	995 ± 100	34 ± 7	290 ± 50	EN ISO 3219

Mechanical Data:

Tensile strength	0.58 ± 0.12	MPa	DIN EN 1504-5
Deformation property	192 ± 38	%	(EN ISO 527-1/-2)
Young's modulus	0.20 ± 0.04	MPa	EN ISO 527-1/-2
28-day Shore Hardness	55 ± 3		ISO 7619-1

COMPOSITION AND PROPERTIES:

Components BETTOPUR CRACKSEAL, Component A consists of polyester polyols and additives. **BETTOPUR CRACKSEAL**, Component B is a modified isocyanate compound.

AREAS OF USE

- Filling the water coming from the negative direction,
- Crack injection and gap filling,
- Deep injections
- Filling dilatation joints,
- Cold joints,
- It is used for sealing, insulating or flexibly bonding cracks, joints and other gaps in concrete, brick or natural stone structures. It can also be injected into joints with injection hoses.

ADVANTAGES

- Solvent Free
- Low viscosity
- High penetration capability and adhesion strength
- High stretch capability up to the breaking point

SURFACE PREPARATION

The surface should be cleaned using pressurized water if possible, removing oil, grease, fuel and paraffin waste, as well as mold release agents, cement residues, chips, loose particles and cured membranes. Large holes or gaps can be filled with polyurethane sealant.

APPLICATION METHOD

Generally, the resin is injected through a hole plug (paker) and through a hole that enters the crack to be repaired. The process is continued until the resin overflows through the observation holes. **BETTOPUR CRACKSEAL** can be applied in two different ways:

Two-component application: The resin components can be applied independently using a two-component pump, again in a 1:1 ratio. The components are mixed in a reusable static mixer before being injected into the hole. The 1:1 volumetric mixing ratio should be checked before injection.

Flow rates greater than 0.3 l/min can be applied if the ambient temperature and the temperature of the system components (pump, pipe, joint...) are between 5°C and 30°C and the product temperature is greater than 15°C.

In cases where the water flow cannot be stopped with **BETTOPUR CRACKSEAL**, **BETTOPUR STOP W** is first injected until the water flow is stopped. After that, **BETTOPUR CRACKSEAL** injection is continued using a different (paker).

System:
The resin mixture penetrates into the cracks to be sealed. Due to the hydrophobic (water repellent) character of the resin, if there is water in the crack, a significant part of it is pushed out of the environment. A small part of it forms a fine void foaming reaction with the resin.

End product: After more than 10 hours, the resin takes solid form. Final hardening takes several days. The set resin is elastic and extensible even in the direction parallel to the bonding surface.

CLEANING OF INSTRUMENTS

After application, tools and equipment can be cleaned with cellulosic or polyurethane thinner.

BETTOPUR CRACKSEAL
17 kg White

ABETTOPUR CRACKSEAL B
Tin19 kg Black Tin

SHELF LIFE

6 months from the date of manufacture under appropriate storage conditions.

STORAGE CONDITIONS

At least 6 months after the date of delivery, provided that it is at a temperature between 10°C and 30°C and in a dry environment. If these periods are exceeded, it is recommended that the product is checked for suitability by **Bet- ton Yapı Kimyasalları San ve Tic. Ltd.** Şti for conformity. Local legislation regarding storage must be complied with.

SECURITY MEASURES

During application, work clothes, protective gloves, goggles and masks should be worn in accordance with the Occupational Health and Safety Rules. Due to the irritating effects of uncured materials, the components should not come into contact with the skin and eyes, in case of contact, wash immediately with plenty of water and soap, and in case of ingestion, consult a doctor immediately. Food and beverage materials should not be brought into the application areas. Keep out of the reach of children.

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