

FlexiJoint 420

Two component, cement-based, polymer modified, elastomeric joint sealant

Description

FlexiJoint 420 is two component, cement-based, acrylic polymer modified mortar. When the powder and liquid components mixed together, they form a mortar which can be applied using sealant gun or trowel. After drying, it forms an elastomeric mortar for sealing moving joints and cracks in concrete and masonry.

Features and benefits

- Non-toxic. Suitable for use in contact with potable water.
- Elastomeric and remain flexible when submerged in water.
- Excellent adhesion to damp substrates.
- Excellent bond to porous and non-porous surfaces.

Recommended for

FlexiJoint 420 can be used for sealing moving joints and cracks in concrete water structures such as swimming pools and water treatment plants. It can be used also for sealing moving joints between concrete elements such as floor slabs, precast panels and concrete pipes.

Composition

FlexiJoint 420 Powder is blend high strength Portland cement, well-graded sands and modifying agents. **FlexiJoint 420** Liquid is based on acrylic polymer emulsion.

Packaging

FlexiJoint 420 is available in 10 kg double pack. (5 kg/bag powder + 5 kg/jerrycan liquid).

Coverage

Joint width (mm)	10	20	30
Joint depth (mm)	5	10	15
Yield (meter run / 10 kg)	139	35	15

10% volume shrinkage is considered.

Note:

Coverage rate takes no account of wastage and may vary according to the type of surface involved.

Technical data

Wet density	1.3 kg/liter
Bond strength	>0.5 N/mm ²
Movement accommodation factor (M.A.F.)	±15%
Elongation at break	60%
Service temperature	Between -20°C and +50°C
Shore A Hardness	35
Pot life	60 minutes at 20°C
Colors	Grey - white

Surface preparation

Joint to be treated must be clean, sound, dust free and un-contaminated. It should be sufficiently cured so that any shrinkage has already occurred. Any material such as bitumen, oil, grease, paint, curing compound, mould oil, laitance or any material that may impair the adhesion of **FlexiJoint 420** must be removed by suitable means. Mechanical surface preparation is recommended using suitable method. It is important to stop water ingress prior to the application of **FlexiJoint 420**. Wash the substrate with clean water. Ensure that the joint to be treated is damp but not wet at the time of application.

Joint size

The number of joints and joint width should be designed for joint width between 10 and 30 mm and for a maximum ±15% M.A.F. For best results, joints with cyclic movements should have a width: depth ratio 2:1. Where joint depth is more than 15 mm, back filling material shall be installed. To maintain the recommended sealant depth, compress foam backing rod into the joint channel without

stretching it. Use foam backing rod approximately 25% larger in diameter than the joint width. In normal joint depth, use bond breaker tap (polyethylene strip) in the bottom of the joint to prevent adhesion to the back of the joint. In all cases, three-point bonding shall be avoided.

Mixing

Add the liquid component into clean container, and then add the powder component slowly while mixing. Mix using slow speed drill fitted with suitable mixing paddle. Mix for 3-5 minutes until a homogeneous lumps-free consistency is achieved. Leave the mixture for 3 minutes. Then remix for 1 minute. DO NOT OVER MIX or add water. MIX AND USE. Mix material that can be applied within 60 minutes (pot life).

Application

If sealant gun will be used, it can be charged using a plastic bag. Fill the bag with the mixed **FlexiJoint 420**, cut off one corner of the bag, and squeeze the mixed **FlexiJoint 420** into the sealant gun. Sealant guns are fitted with conical nozzles which can be cut to suit the joint width. Apply a primer coat using UniBond LX by brush to the sides of the joints. While the primer coat is still wet, apply **FlexiJoint 420** into the joint using sealant gun, trowel or putty knife. Fill joint from bottom to prevent formation of air voids. Overfill the joint by 10% to compensate any shrinkage during curing. Compact it into the joint using an even pressure. Finish the surface with soapy solution immediately after application to give a smooth appearance. Any masking tape which may be used along the sides of the joint should be removed before sealant cures.

Curing

Air-dry circumstance is recommended for curing **FlexiJoint 420**. Curing time is affected by joint depth and weather conditions

FlexiJoint 420 depth	Drying time
2 mm	1 day
8 mm	3 weeks
15 mm	6 weeks

Important notes

Do not apply **FlexiJoint 420** in direct sunlight or if the ambient temperature is below 5°C.

When rain is anticipated within 24 hours after application, the surface should be protected. Protect **FlexiJoint 420** from traffic until fully cured.

If **FlexiJoint 420** will be coated with **MaxProof 460**, allow it to cure for at least 3 days before applying **MaxProof 460**.

Filling water retaining structures with water can take place usually not less than 14 days after application. If earlier filling is required, filling may be considered after not less than 7 days ensuring that the surface is thoroughly checked for hardness.

Cleaning

Clean tools with water immediately after use. Hardened materials should be cleaned mechanically.

Storage and shelf life

If stored unopened in a dry place at a temperature between +5°C and +30°C away from sources of heat and moisture, shelf life is 12 months from the date of manufacture printed on the pack.

Health and Safety

FlexiJoint 420 Powder contains cement. When it comes in contact with sweat or other body fluids causes irritant alkaline reaction and allergic reactions to those predisposed. It can cause damage to eyes. In case of contact with eyes or skin wash immediately with plenty of water and seek medical attention.

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FlexiJoint 420 Liquid is not considered dangerous according to the current regulation regarding the classification of mixtures. It is recommended to wear gloves and goggles and to take the usual precautions taken for the handling of chemicals. Keep product out of reach of children.

A MSDS for the product is available. Detailed information regarding health and safety risks and precautions for the use of this product is specified in the product's MSDS.

The most up-to-date TDS can be obtained from ACC Customer Service Department, or downloaded from our website: www.acc.com.eg.

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