MAXFLEX® 100 W

HIGH-PERFORMANCE, MODIFIED-POLYURETHANE SEALANT FOR PERMANENT IMMERSION JOINTS AND CONTACT WITH POTABLE WATER

DESCRIPTION

MAXFLEX® 100 W is a one-component, modified-polyurethane, isocyanate-free, elastomeric sealant with high weathering resistance, suitable for sealing joints or cracks in permanent immersion and contact with potable water.

APPLICATION FIELDS

- Sealing of joints and cracks in contact with potable water in storage tanks, channels, water treatment plants, etc.
- Expansion joints in different construction elements, pre-cast concrete, mortars, brickworks, etc.
- Sealing of joints in facades, curtain walls, windows and door outside frames, etc.
- Joints in contact with chemicals in storage bunds, chemical tanks, sewage treatment plants, etc.

ADVANTAGES

- Suitable for contact with potable water.
- Allows to be applied on wet surfaces.
- Low elasticity modulus and withstands joint movements up to 25 %.
- Suitable for vertical and horizontal joints.
- Good adhesion on common construction materials: concrete, mortar, brickworks, ceramic, natural stone, etc.
- High resistance to weathering and ambient agents.
- Good chemical resistance to sea water, sewage waters, diluted acids and alkalis, etc.
- Isocyanate-free sealant, odourless and non-corrosive.
- Can be painted over once it is fully cured.
- Easy to use. One-component and ready to apply.

APPLICATION INSTRUCTIONS

Dimension of joint
Minimum and maximum joint width should be about 8 mm and 40 mm, respectively. For general proposes, depth of the sealant should be about the half of the joint width, with the exception of under 15 mm joint width, where depth and width must be equal. For expansion joints, the width should be at least four times than movement expected.

Use a closed cell polyethylene backer rod such as ***MAXCEL®*** (Technical Bulletin N.: 48), with a diameter 25% larger than joint width. Do not prime surface over the backer-rod.

Surface preparation
Surfaces must be structurally sound and clean, free of dust, coatings, efflorescences, oil, grease, gypsum or any foreign material that could affect to adhesion. Substrate should be provided with slight roughness and may be slightly wet, but without free estanding water. If necessary, clean by mechanical means such as grinding, sandblasting or wire brushing. Use non-grease solvents for cleaning greases and oils.

In order to improve the adhesion on porous surfaces, on wide expansion joints or on joints subject to water immersion, apply ***PRIMER® 1*** by brush with a recommended coverage from 0,13 to 0,17 l/m^2 (Technical Bulletin N.: 68). Apply the sealant after primer has released the solvent but is still tacky, i.e. from 30 to 120 minute. Drying-time will vary

depending on temperature and humidity. After this time or if primer is dry, apply a new primer coat.

To prevent staining the edges of the joints and provide a better finish, it is advisable to place masking tape on either sides of the joint before applying the primer or the sealant.

Application
MAXFLEX® 100 W cartridges and bags are ready to use using a caulking gun with a properly sized nozzle. Do not open product packaging until all previous jobs have been completed.

During application, press the nozzle against the edges and bottom to prevent air bubbles. For thin joints, apply in a single pass from the deepest point to the surface. In wide joints, it should be applied in three steps, the first two, on the joint edges and finally filling in the centre.

After application, in order to smooth over the surface, soapy water can be used. Sealant application is finished by removing the masking tape before the curing begins.

MAXFLEX® 100 W can be painted or coated after curing at least 3 days. Preferably use flexible and solvent-free coatings (***MAXSEAL® FLEX, MAXSHEEN® ELASTIC***, etc.). Check previously adhesion and compatibility of the coating.

Application conditions
Optimal temperature for application is between 10º to 30º C. Do not apply with temperatures below 5 ºC or if lower temperatures are expected during the first 24 hours. Do not apply on frozen or frosted surfaces or when relative humidity is higher than 90 %. Surface and air temperature must be at least 3 ºC higher than dew point during the first 24 hours.
Do not apply if rain is expected the first 24 h.

Curing
Allow a minimum curing time of 3 days before covering with coatings and 7 days before water immersion (at 20°C and 50% R.H.). Applications carried out at lower temperature with high humidity or poor ventilation will require longer curing times.

Cleaning
Tools and equipments can be cleaned with ***MAXSOLVENT®*** immediately after use. Once the product hardens, it can only be removed by mechanical methods.

CONSUMPTION

The estimated consumption for ***MAXFLEX® 100 W*** can be calculated from:

Consumption (ml of sealant/lineal metre of joint) = Width of the joint (mm) * Depth of the sealant (mm)

For a 10 x 10 mm joint, the estimated consumption is about 95 ml per 1 m length of joint.

Coverage for a 290 ml cartridge or for 600 ml bag of ***MAXFLEX® 100 W*** can be estimated from:

Coverage (lineal meters of joint/cartridge) = 290 * 1/Width of the joint (mm) * 1/Depth of the sealant (mm)

Coverage (lineal meters of joint/bag) = 600 * 1/Width of the joint (mm) * 1/Depth of the sealant (mm)

These figures may vary depending on the roughness, surface conditions and the application method. A preliminary test on-site will determine the coverage exactly.

IMPORTANT INDICATIONS

- Avoid contact with water, solvents or any other compound during the curing.
- Do not apply with temperatures below 5ºC.
- Apply ***MAXFLEX® 100 W*** on recommended ***DRIZORO®*** primers and while it is still tacky.
- Do not exceed the recommended ratio width/depth of the joint.
- For joints wider than 40 mm use ***MAXFLEX® XJS.***
- Do not use in joints with expected movement capability higher than 25%.
- For further information and other uses not specified in this Technical Bulletin, consult our Technical Department.

PACKAGING

MAXFLEX® 100 W is supplied in 290 ml cartridges and 600 ml bag. It is available in grey colour.

STORAGE

Twelve months in its original unopened packaging, in a dry and covered place protected from direct sunlight and freezing, with temperatures between 5 °C and 30 °C.

SAFETY AND HEALTH

MAXFLEX® 100 W is non toxic but eye and skin contact must be avoided. In case of eye contact, rinse immediately with clean water without rubbing. In case of skin contact, wash with abundant water and soap. If irritation persists seek medical assistance. If ingested seek immediate medical assistance. Do not induce vomiting.

For further information, Safety Data Sheet for ***MAXFLEX® 100 W*** is available by request.

The final user must do disposal of the product and its empty containers according to official regulations.

TECHNICAL DATA

Characteristics of the product	
Appearance and color	Grey paste
Density (g/cm^3)	1,35 ± 0,10
Conditions for application and curing	
Maximum joint width (mm)	40
Width : depth joint ratio	2:1
Temperature for application and curing (°C)	From +5 to +35
Skin over time at 23 °C and 50% R.H. (minutes)	60 – 120
Curing rate at 23 °C and 50% R.H. (mm per 24 hours)	2
Curing time for coating / water immersion at 23 °C and 50% R.H. (days)	3/10
Characteristics for the cured product	
Shore A hardness, ISO 868	22
Elastic modulus at 100 %, DIN EN ISO 8340 (MPa)	0,3
Tensile strength at 100 %, NF P 85506 – ISO 11600 (MPa)	0,5
Elongation at break, NF P 85506 – ISO 11600 (%)	>250
Elastic recovery, NF P 85506 – ISO 11600 (%)	80
Sag, DIN EN ISO 7390 (mm)	0
Maximum joint movement capability, (%)	25
Service temperature range (°C)	From -30 to +80
Suitability contact with potable water	Approved (RD 140/2003)
Consumption	
Consumption cartridge 290 ml per 10x10 mm joint (lineal meters of joint)	Approx. 2,9

(*)These figures may vary depending on the roughness and the surface conditions. A preliminary test on-site will determine the consumption exactly.

GUARANTEE

The information contained in this leaflet is based on our experience and technical knowledge, obtained through laboratory testing and from bibliographic material. ***DRIZORO®, S.A.U.*** reserves the right to introduce changes without prior notice. Any use of this data beyond the purposes expressly specified in the leaflet will not be the Company's responsibility unless authorised by us. We shall not accept responsibility exceeding the value of the purchased product. The data shown on consumptions, measurement and yields are for guidance only and based on our experience. These data are subject to variation due to the specific atmospheric and jobsite conditions so reasonable variations from the data may be experienced. In order to know the real data, a test on the jobsite must be done, and it will be carried out under the client responsibility. We shall not accept responsibility exceeding the value of the purchased product. For any other doubt, consult our Technical Department. This version of bulletin replaces the previous one.

DRIZORO Construction Products

DRIZORO, S.A.U.
C/ Primavera 50-52 Parque Industrial Las Monjas
28850 TORREJON DE ARDOZ – MADRID (SPAIN)
Tel. 91 676 66 76 - 91 677 61 75 Fax. 91 675 78 13
e-mail: info@drizoro.com Web site: drizoro.com

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ISO 14001
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