



MAXEPOX[®]

BOND -G

TWO-COMPONENT EPOXY ADHESIVE FOR BONDING OF METAL AND CONCRETE

DESCRIPTION

MAXEPOX[®] BOND-G is a two-component and 100% solids –solvent free- epoxy-based bonding agent, which has been specially designed for the bonding of metal plates over concrete or between different construction elements.

APPLICATION FIELDS

- Bonding of metal plates over roughened fully cured concrete for structural reinforcement.
- Fixing of anchorage bolts.
- Fixing of **MAXFLEX[®] XJS** TPE bands (Technical Bulletin N.: 73) for sealing expansion joints.
- Bonding of concrete elements and other constructions materials such as stone, marble, wood, glass, etc

ADVANTAGES

- Exceptional adhesion, suitable for transmitting of high loads.
- Excellent mechanical properties.
- Very good resistance to chemical agents and ageing.
- Solvent-free and easy to apply.

APPLICATION INSTRUCTIONS

Surface preparation

Surface to be bonded 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 a slight roughness and must be dry.

Additional information concerning to the surface preparation and application procedure can be found on our technical note *Recommendations for the use of epoxy-based bonding agents*.

For steel or metal substrates, treat the surfaces by shot or sand blasting to Sa 2½ grade (near to white metal) according to Swedish Standard SIS 055900 or equivalent. For the drying conditions on metal surfaces, special care should be taken because if it is too slow, corrosion problems may appear. In that case, protect the surface covering with **MAXFLOOR[®]** (Technical Bulletin N.: 33) and while it is still fresh, spread dry silica sand in order to improve the adhesion of the bonding agent.

Mixing

MAXEPOX[®] BOND-G is supplied as a pre-weighed two-component set. The hardener, component B, is poured into the main component A. In order to ensure the proper reaction between both components, make sure that all of component B is added. Mix mechanically using a slow speed drill (up to 300 rpm) until achieving a homogeneous product in colour and appearance. Small quantities of product can also be mixed by hand. Do not mix for prolonged period nor use high-speed mixer, which may heat the mixture or introduce air bubbles.

Check the technical data table for the pot-life or time it takes the product to harden inside the container. The pot-life for a 5 kg set at 20 °C is 75 minutes, increasing with lower temperatures or small quantities of mixture and reducing with higher temperatures.

Application

Apply **MAXEPOX[®] BOND-G** in a thin layer on the surface using a short haired brush, short pile roller, spatula, etc. Apply a uniform and homogenous coat with consumption from about 0,3 to 1,0 kg/m², depending on the substrate conditions.

The metal plate or construction material must be placed while **MAXEPOX[®] BOND-G** is still tacky in the open time interval. If bonding agent dries before next application, apply it again. Consult the technical data table; open

time at 20 °C is 2 hours, increasing with lower temperatures and reducing with higher temperatures.

Application conditions

Minimum substrate temperature is 5 °C and the relative humidity for the air is less than 80 %. Surface and air temperature must be at least 3 °C higher than dew point during the application and curing process. For low temperatures and/or high humidity levels, use dry and hot air, i.e. air from an electric powered air blower system, in order to get a suitable application conditions.

If the concrete contains humidity, it is not sufficient to dry the surface with hot air, as the humidity within the concrete will quickly rise to the surface.

Curing

Do not apply with temperature below 5 °C or if it is expected to drop below 5 °C within 24 hours. Allow a curing time of 4 days at 20 °C and 50% R.H. for total curing and before putting into service. Applications carried out at lower temperatures, with high humidity or with poor ventilation require longer drying and curing times.

Cleaning

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

Do not use any solvent at all for personal cleaning. Instead use soap, detergents or special products.

CONSUMPTION

The estimated consumption for **MAXEPOX® BOND-G** varies from 0,3 kg/m² to 1,0 kg/m². These figures may vary depending on the roughness, surface conditions and the application method used. A preliminary test on-site will determine the coverage exactly.

IMPORTANT INDICATIONS

- Surface moisture content must not exceed 4%.
- Allow new concrete and mortar to cure 28 days before applying **MAXEPOX® BOND-G**.

- Apply the metal plate while **MAXEPOX® BOND-G** is still tacky. Do not allow the bonding agent to dry.
- Do not add water, solvents, aggregates, admixtures or any other compounds to **MAXEPOX® BOND-G**.
- Avoid condensation, damp or water contact for at least 24 hours after application.
- For further information and other uses not specified in this Technical Bulletin consult our Technical Department.

PACKAGING

MAXEPOX® BOND-G is supplied in two-components pre-weighed sets of 2 and 5 kg.

STORAGE

Twelve months in its original unopened packaging, in a dry and covered place, with temperatures between 5 °C and 30 °C. Protect against direct sunlight and frost.

Temperatures below 5 °C lead the crystallisation of the product. Should this happen, it must be heated slowly between 80-90 °C while is regularly stirred until achieving its homogeneous and original lump-free conditions.

SAFETY AND HEALTH

When mixing and applying **MAXEPOX® BOND-G**, do not work without the protection of rubber gloves and safety goggles. Do not inhale vapors from heating and combustions process. In case of eye contact, rinse immediately with clean water without rubbing and seek medical assistance. In case of skin contact, wash with abundant water and soap. If ingested, seek immediate medical assistance. Do not induce vomiting. Observe the usual precautions necessary for the use and applications of this type of products.

For further information, Safety Data Sheet for **MAXEPOX® BOND-G** is available by request.

Disposal of the product and its empty packaging must be made by the final user and according to official regulations.

TECHNICAL DATA

Characteristics of the product	
Solid content (% , by weight)	100
A:B mixing ratio, (by weigh)	1:0,48
Conditions for application and curing	
Temperature for application and curing (°C)	>5
Pot life at 10°C / 20°C / 30°C (5 kg) (minutes)	150 / 75 / 20
Open time at 10°C / 20°C / 30°C (hours)	4 / 2 / 0,75
Time for total curing at 10°C / 20°C / 30°C (days)	5 / 4 / 3
Characteristics for cured product	
Adhesion to concrete after 24 h at 20 °C (kp/cm ²)	> 35 (Breaks the concrete)
Compressive strength after 24 h at 20 °C (kp/cm ²)	800
Flexural strength after 24 h at 20 °C (kp/cm ²)	200
Modulus of elasticity after 24 h at 20 °C (kp/cm ²)	170.000
Consumption	
Consumption* per layer (kg/m ²)	0,3-1,0

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



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