

VELOSIT® IR 601

Water Activated Hydrophobic Polyurethane Injection Grout

Application fields

VELOSIT IR 601 is a semi rigid hydrophobic water activated injection grout based on MDI chemistry. It is 100% solids and solvent free. It is mixed with VELOSIT IR 610 Accelerator at 2% to 10% to control reaction time of the grout.

Typical application fields are as follows:

- Stopping active water leaks in cracks and joints
- Stabilization of soil
- Filling of large voids
- Waterproofing pipe penetrations
- Curtain Wall applications
- Suitable for both Potable and Waste Water

Properties

When VELOSIT IR 601 comes in contact with water it forms a semi rigid foam that expands 30-40% of its volume. Since VELOSIT IR 601 is hydrophobic, it does not use water to form its cell structure. This results

in a cured foam that will not shrink or swell and will not be affected if the treated area becomes dry.

VELOSIT IR 601 is mixed with IR 610 Accelerator at varying amounts to achieve the desired reaction and set time. Depending on the amount added and the pressure at which the resin is injected, the resultant foam may vary from closed cell to slightly open cell. Due to the low viscosity of the resin, it has the ability to penetrate under pressure and fill hairline cracks, voids, and unconsolidated areas in concrete, shotcrete and stone. It can also act as a high strength soil stabilization grout. The VELOSIT IR 601 can be and is often used in conjunction with other products in the VELOSIT IR line.

Application

VELOSIT IR 601 and VELOSIT IR 610 Accelerator are packaged separately to allow for adjustment of the reaction time. The VELOSIT IR 610 must be added to ensure that the resin reacts. Because the accelerator can be added across a wide range, the VELOSIT IR 601 becomes a very versatile injection grout that can be used in a variety of applications. The reactive properties, gel times, and expansion rates can be adjusted. For waterproofing applications, an addition of 2%-10% of the VELOSIT IR 610 is

recommended. In instances of very high active water flow or low temperatures, the addition of the accelerator is increased to up to 10%. For conditions that require longer open time so the resin can travel a distance before expanding (hairline cracks etc.), a 5% addition is used. Temperature and humidity greatly influence the gel times of the product. Do not mix more material than can be pumped in a reasonable period of time.

Ensure that all equipment including mixing paddles, pails, pumps and hoses are dry. If product begins to foam or the viscosity of the mixed resin increases, cease pumping and begin to clean the system out.

Cleaning

VELOSIT IR 601 can be cleaned in the fresh state with Acetone. Once it has cured mechanical removal is necessary.

Quality features

Color:	Amber
Solids:	100%
Mix Ratio by volume:	5:1 IR 610
Density:	1.6 g/ml
Boiling Point:	400 F
Flash Point:	356 F
Viscosity:	160-250 cps

Reaction

Induction Time 20C/68F:	30 sec (5% IR 610)
Gel Time 20C/68F:	70 sec (5% IR 610)
Induction Time 20C/68F:	5 sec (10% IR 610)
Gel Time 20C/68F:	50 sec (10% IR 610)

Properties of Cured Resin

Expansion %:	30-40%
Elongation %:	10-20% ASTM D 638
Shrinkage %:	<4% ASTM D 1042
Tensile Strength:	65 psi ASTM D 638
Strength (sand Filled):	1550 psi
Appearance:	Yellowish Foam

Packaging

VELOSIT IR 601 is available in 1, 5, 55 Gallons
VELOSIT IR 610 Accelerator is available in .1 and .5 Gallons

Storage

VELOSIT IR 601 can be stored in unopened original packs for 12 months at 5-35°C (40-95°F) in a dry storage place protected against sunlight.

Safety

Please observe the actual valid material safety data sheet and follow the described safety measures for handling of the product.

Used product containers must be emptied completely after use. They can be returned to VELOSIT USA LLC on request.

Recommendations

VELOSIT IR 601 is only available for professional applicators.

All described product features are determined under controlled laboratory conditions according to the relevant international standards. Values determined under job site conditions may deviate from the stated values. Velosit USA LLC warrants this product for a period of 1 year from the date of installation to be manufactured without defects and to be consistent with printed technical characteristics. Velosit USA LLC makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties expressed or implied.

Please always use the latest version of this data sheet available from our website www.velosit-usa.com

Manufacturer

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