

ONE-PART HIGH-PERFORMANCE POLYURETHANE SEALANT

DESCRIPTION

Vulkem 116 is a one-part, moisture-curing, gun-grade polyurethane sealant. It is durable, flexible, and offers excellent performance in dynamic joints.

USAGE / PURPOSE

Vulkem 116 is an excellent general-purpose sealant designed for use on poured concrete, precast, masonry, window and door perimeters, and similar types of construction joints. Vulkem 116 is suitable for continual immersion in water and is designed for exterior and interior use. Also suitable for varied manufacturing uses, such as production of travel trailers and mobile homes and in assembly of galvanised air conditioning duct work.

COLOURS

Grey. Other colours – subject to availability / minimum order quantity.

PACKAGING

600ml Sausage packs (20 per case)

AVAILABILITY

From StonCor Africa

COVERAGE RATE

(Approximate Linear Metres per 600ml Sausage)

Width	6mm	10mm	20mm	25mm
Depth (min)				
6mm	16.7m	10.0m	-	-
10mm	-	-	3.0m	-
12mm	-	-	-	2.0m

TYPICAL PROPERTIES AT 25°C

Extrusion Rate (ASTM C-1183)	40-50 ml/min
Hardness Properties, Scale "A" (ASTM C-661)	40
Weight Loss (ASTM C-1246)	Pass
Skin Time (tooling time)	6 Hours
Tack-free Time (ASTM C-649)	30 Hours
Stain & Colour Change (ASTM C-510)	No visible colour change No stain
Adhesion-in-Peel (ASTM C-794)	Aluminium 80-99 N Concrete 89-111 N Brick 85-102 N No adhesion loss
Effects of Accelerated Aging (ASTM C-793)	Pass
Movement Capability (ASTM C-719)	± 25%
Tensile Strength (ASTM D-412)	250 psi
Ultimate Elongation (ASTM D-412)	200-300%
100% Modulus (ASTM D-412)	230 psi

APPLICATION INSTRUCTIONS

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application procedure. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials.

USAGE GUIDELINES

JOINT DESIGN CONSIDERATIONS

Vulkem 116 may be used in any vertical or horizontal joint designed in accordance with accepted architectural/engineering practices. Joint width should be 4 times anticipated movement, but not less than 6.4mm.

JOINT BACKING

Closed cell or reticulated polyethylene backer rod is recommended as joint backing to control sealant depth and to ensure intimate contact of sealant with joint walls when tooling. Where depth of joint will prevent the use of backer rod, an adhesive backed polyethylene tape (bond breaker tape) should be used to prevent three-sided adhesion. All backing should be dry at time of sealant application.

EXPANSION JOINTS

The minimum width and depth of any sealant application should be 6mm by 6mm.

The depth of sealant may be equal to the width of joints that are less than 13mm wide. For joints ranging from 13mm to 25mm wide, the sealant depth should be approximately one-half of the joint width.

The maximum depth of any sealant application should be 13mm. For joints that are wider than 25mm, contact Tremco's Technical Service Department.

WINDOW PERIMETERS

For fillet beads, or angle beads around windows and doors, the sealant should exhibit a minimum surface contact area 6mm onto each substrate.

SURFACE PREPARATIONS

Surfaces must be sound, clean and dry. All release agents, existing waterproofing, dust, loose mortar, laitance, paints, or other finishes must be removed. This can be accomplished with a thorough wire brushing, grinding, sandblasting, or solvent washing, depending on the contamination.

PRIMING

Where deemed necessary, use Stonprime 639 for porous substrates and TREMPRIME Non-Porous Primer for metals and plastics. Vulkem 116 typically adheres to common construction substrates without primers; however, Tremco always recommends that mock-up or field adhesion test be performed on the actual materials being used on the job to verify the need for a primer.

APPLICATION

Vulkem 116 is easy to apply with conventional caulking equipment. Ensure that the backer rod is friction fitted properly and any primers have been applied. Fill the joint completely with a proper width-to-depth ratio and tool to insure intimate contact of sealant with joint walls. Dry tooling is always preferred, although Xylene can be used in limited amounts to slick the spatula if needed.

For a cleaner finish, mask the sides of the joint with tape prior to filling.

CURE TIME

Vulkem 116 generally cures at a rate of 1.6mm per day at 24°C and 50% relative humidity. It will skin in 5 hours and be tack-free in 30 hours. The cure time will increase as temperatures and/or humidity decrease. A good rule of thumb is one additional day for every 5°C decrease in temperature.

CLEAN UP

Immediately remove excess sealant and smears adjacent to the joint (use masking tape where appropriate). Equipment may be cleaned with Pro-Struct 105 Epoxy Brush Cleaner while sealant is in an uncured state.

LIMITATIONS

- Do not apply Vulkem 116 over damp or contaminated surfaces.
- Surface temperature to be maintained above 5°C.
- Always utilise the accompanying MSDS for information on Personal Protective Equipment (PPE) and health hazards.

WARRANTY

Tremco warrants its sealants to be free of defects in materials, but makes no warranty as to appearance or colour. Since methods of application and on-site conditions are beyond our control and can affect performance, Tremco makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE, with respect to Tremco sealants. Tremco's sole obligation shall be, at its option, to replace or refund the purchase of the quantity of Tremco sealants proven to be defective and Tremco shall not be liable for any loss or damage.

CAUTION: MAY CONTAIN FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKMEN MUST WEAR FRESH AIRLINE RESPIRATORS. HYPERSENSITIVE PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRONIC EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST, WORKMEN SHOULD BE REQUIRED TO USE NONFERROUS TOOLS AND TO WEAR CONDUCTIVE AND NONSPARKING SHOES



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