



Construction Sealant 525PU

Meets Construction Sealant (Type F - CLASS 25LM) acc to DIN EN ISO 11600

Product Data Sheet

Date: March 2013
Supersedes: January 2013

Product Description

525PU is a single component polyurethane based elastomeric sealant which cures under the effect of atmospheric humidity to form a flexible and resistant joint with very good adhesion on most materials including plastics, FRP, SMC, aluminum, steel, coated metal concrete, brick, stone and wood.

Key Features

Features	Advantages
One component/moisture curing	<ul style="list-style-type: none">No MixingSimplifies production
Bonds dissimilar materials	<ul style="list-style-type: none">Gives design flexibility
Adheres to a wide variety of materials	<ul style="list-style-type: none">Multiple uses and design flexibility
Permanently elastic	<ul style="list-style-type: none">Provides long lasting bonds
Fast curing	<ul style="list-style-type: none">Speeds production
Paint-able	<ul style="list-style-type: none">Improves appearance
Low modulus	<ul style="list-style-type: none">Ideal for sealingGood for bonding material with different coefficients of thermal expansion

Performance Characteristics

	525PU
Skin formation time (min) (ISO 291, 23°C, 50% RH)	90min – 150 min
Cure time, mm/24hrs (ISO 291, 23°C, 50% RH)	3 mm/24 hrs
Shore A Hardness (ISO 868-3 seconds)	Approx 25
Density (g/ml) (DIN EN ISO 2811-2)	Black: 1.16 ± 0.05 Others: 1.18 ± 0.05
Conventional solids content (EN 827)	> 93 %
Elongation at Break (ISO 37)	>500 %
Modulus at 100% (ISO 37)	0.3 MPa
Modulus at break (ISO 37)	Approx. 1.5 MPa
Tensile Strength at 100% elongation (ISO 8339)	0.23 MPa
Tensile shear at break (ISO 8339)	0.53 MPa
Tear strength (DIN 53515)	Approx. 6.5 N/mm

Sagging (mm) (ISO 7390)	None
Volume loss (%) (ISO 10563)	6.5 %
Temperature resistance	-40°C to 80°C
Colours	White, Black and Grey
Application temperature	5°C to + 35°C
Resistance to dilute acids and bases	Average
Water and salt spray resistance	Excellent
Consistency	Pasty
UV resistance	Good
Compatibility with paints	Water based : yes / Solvent based : carry out tests beforehand

Direction for Use

Surface Preparation:

Surfaces to be sealed or bonded must be clean, dry and be free from grease, mould release, oil, water/condensation and other contaminants that may affect the adhesion of the sealant. Abrading with 180 to 220 grit abrasive followed by a solvent wipe will improve the bond strength. Suitable solvents include 3™ Citrus Based Adhesive Remover, 3M™ Scotch-Weld™ Solvent No. 2 or methyl ethyl ketone (MEK).*

*When using solvents, use in a well ventilated area. Extinguish all sources of ignition in the work area and observe product directions for use and precautionary measures. Refer to product label and MSDS for further precautions. Always pre-test solvent to ensure it is compatible with substrates.

Local and federal air quality regulations may regulate or prohibit the use of this product or surface preparation and cleanup materials. Consult local air quality regulations before using these products.

Note: Alcohol will interfere with the curing process and extra care must be taken when using alcohol as a cleaning solvent to prevent any contact with the sealant.

Use of a primer is an extra step and cost and will depend on substrates and the final end use. Using primer can improve the corrosion resistance of certain metals as well as improve the durability of the bond when exposed to high humidity conditions. For most applications high strength bonds on metal can be achieved without the use of a primer. Pre-testing for adhesion is suggested to determine if a primer is needed. The 3M™ Scotch-Weld™ Structural Adhesive Primer EC-1945 B/A works well for most metals.

Application:

Puncture seal in nozzle and knock out the thin seal at cartridge bottom before placing in caulking gun. (For flex packs cut off the small crimp at the end and then place in caulking gun barrel with the open end up). Assemble tip and retaining ring on gun, cut tip to desired size. Product should be used within 24 hours after seal is punctured and should be pressed firmly into the joint to ensure adequate contact of the sealant with the substrate. Apply product when temperatures are between 5°C and 35°C. Do not apply on frozen surfaces or wet surfaces. Do not apply over silicones or in the presence of curing silicones. Avoid contact with alcohol and solvents during curing. Sealant can be tooled immediately after applying to give desired appearance.

Cleanup:

While sealant is still soft cleaning can be done with the same solvents used for surface preparation. If sealant is already cured, removal is done mechanically with razor knife, piano wire, sanding or 3M™ Scotch-Brite™ Moulding Adhesive and Stripe Removal Disc. This disc is available from 3M Automotive Aftermarket Division.

Application Equipment Suggestions	Cartridge, Flex Pack, Bulk dispensing Please contact your local 3M representative
Shelf Life	12 months in the original, hermetically sealed cartridges or sausages between 5 and 25 °C
Precautionary Information	Refer to product label and Material Safety Data Sheet for health and safety information before using the product. For information please contact your local 3M Office. www.3M.com
For Additional Information	To request additional product information or to arrange for sales assistance, call 0870 6080050 Address correspondence to: 3M United Kingdom PLC, 3M House, 28 Great Jackson Street, Manchester, M15 4PA
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