Construction Sealant PU 535

Product Data Sheet

January 2009
Supersedes: New

Product Description

3M™ Construction Sealant PU 535 is a one component, moisture curing product which forms permanent elastic bonds. It bonds to a wide variety of materials including plastics, FRP, SMC, aluminum, steel, coated metal and wood.

Key Features

Features	Advantages
One component/moisture curing	• No Mixing • Simplifies production
Bonds dissimilar materials	• Gives design flexibility
Adheres to a wide variety of materials	• Multiple uses and design flexibility
Permanently elastic	• Provides long lasting bonds
Fast curing	• Speeds production
Paint-able	• Improves appearance
Low modulus	• Ideal for sealing • Good for bonding material with different coefficients of thermal expansion

Performance Characteristics

Tack-Free Time @ 23 ºC and 50 % r. H.	Approx. 90 minutes
Rate of Cure @ 23 ºC and 50% Relative Humidity	3 mm per 24 hours
Shore A Hardness (ISO 868-3 seconds)	Ca 40
Density at 20 ºC	Black: 1,16 ± 0,05 Others: 1,18 ± 0,05
Elongation at Break (ISO 8339)	>600 %
100% Modulus (ISO 8339)	0,4 MPa
Sagging (ISO 7390)	None
Service Temperature	-30 ºC to + 80 ºC
Colours	White, Black and Grey
Application temperature	5 ºC to + 35 ºC
Resistance to dilute acids and bases	average
Water and salt spray resistance	Excellent
Consistency	Medium paste
UV resistance	Good
Compatibility with paints	Water based : yes / Solvent based : carry out tests beforehand

UV Properties:	The products have good resistance to UV aging and will retain strength and flexibility over long-term exposure to UV light. The white product may show some yellowing with long-term exposure to UV light.
Heat Resistance:	Long term exposure to temperatures greater than 80 ºC will decrease tensile strength over time. For this reason these products should not be used in applications were the temperatures will continuously exceed 80 ºC.
Direction for use	**Surface Preparation:** Surfaces to be sealed or bonded should be clean and dry. Surfaces should be free from grease, mould release, oil, water/condensation and other contaminates 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 5º C and 35º 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
Storage	Store 3M™ Construction Sealant PU 535in the original container at 21 ℃. Rotate stock on a “first in-first out” basis .
Shelf Life	12 months after date of dispatch from 3M.
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.se
For Additional Information	To request additional product information or to arrange for sales assistance, call: 08-92 22 50 Address correspondence to: 3M Svenska AB, Industri, 11191 89 Sollentuna
Important Notice	All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M’s control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user’s knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user’s method or application. All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law

Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations

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