



Scotch-Weld™ UV Curing Adhesive UV50

Product Data Sheet

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Product Description Scotch-Weld UV50 is a single component, high viscosity adhesive formulated for bonding glass to glass and glass to metal. It cures rapidly to give a clear bond when exposed to UV-light.

Key Features

Scotch-Weld UV50 is suited to applications requiring a tough cured polymer and rapid bonding. Scotch-Weld UV50 gives a medium-high strength bonding of glass and glass to metal. Typical uses include glass ornaments, jewellery assembly and bonding glass furniture and displays.

Properties

Base	Urethane acrylate adhesive
Appearance	Clear
Specific Gravity	1.09
Viscosity cPs Brookfield RVT, spindle 3, 2.5rpm	Range 5500 -7500 Typical Value 6500
Fixture Time (glass slide fixture 10mW/cm ² @365nm)	< 3secs
Depth of Cure (cured for 30s at 10mW/cm ² @365nm)	1.5 – 3.5mm
Tensile Strength (Grit blasted mild steel to glass, ASTM D2095-69)	Range 6 -15N/mm ² Typical 10 N/mm ²
Refractive index	1.4620 – 1.4720
Hardness, Shore D	71 -77
Operating Temperature Range	-50 to +130 °C

Curing Mechanism

Scotch-Weld UV50 is formulated to cure when exposed to UV radiation of 365nm. To obtain a dry to touch finish, the adhesive should be cured in the absence of oxygen or with UV radiation of 250nm.

Scotch-Weld UV50 can be cured using visible light. However, for a controlled, repeatable cure, UV lamps should be used. Higher intensity lamps will give faster cure speeds. UV50 gives a fixture time of <10secs. @ 10mW/cm (Grit blasted mild steel to glass, ASTM D2095-69)

Heat Ageing	Scotch-Weld UV-curing adhesives exhibit excellent resistance to heat ageing. Typically, exposure to heat for a prolonged period results in fully curing any uncured resin that may remain.
Application Techniques	Ensure parts are clean, dry and free from oil and grease. Apply adhesive to one surface, bring parts together and expose to UV light. Alternatively, parts can be assembled and the adhesive applied and allowed to wick around the joint before curing. Excessive adhesive can be wiped away with Scotch-Weld AC70 Safety Clean or alcohol
Storage Conditions	Keep the adhesive in a cool, dry place away from direct sunlight. Under such conditions shelf life at room temperature will be 12 months. Refrigeration to 5°C gives optimum storage stability.
Shelf Life	12 months from date of despatch by 3M when stored in the original carton at 21°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 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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