Scotch-Weld™ UV Curing Adhesive UV02

Product Data Sheet

Updated : February 2010
Supersedes: March 2007

Product Description

Scotch-Weld UV02 is a single component medium-high viscosity adhesive that cures to give a clear bond when exposed to UV light.

Key Features

Scotch-Weld UV02 has been formulated for potting, encapsulating and sealing applications, e.g. in the electronics industry. UV02 can also be used for coating and doming applications, e.g. on badges and emblems. UV02 has a very fast cure time and good depth of cure. UV02 cures dry to touch.

Properties

Base	Urethane acrylate adhesive
Appearance	Clear, slight yellow tinge.
Specific Gravity	1.09
Viscosity cPs	Range 2600-3800
Fixture Time (glass slide fixture 10mW/cm^2 @365nm)	<2secs
Depth of Cure (cured for 30s at 10mW/cm^2 @365nm)	4mm
Refractive index	1.537
Hardness, Shore D	85
Temperature Range	Continuous -50 to +120 ºC Intermittent -50 to +150 ºC

Curing Mechanism

Scotch-Weld UV02 is formulated to cure when exposed to UV radiation of 365nm and above. The rate of cure, depth of cure and surface tack of the cured adhesive will depend on the intensity of the UV light, exposure time, spectral output of the UV light source and light transmittance of the substrates to be bonded. Depths of cure of up to 10mm can be achieved with high intensity lamps and long cure times. To achieve a fast, controlled, reproducible cure performance, the use of high quality UV lamps is recommended.

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, please see below for contact details.
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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