3M Scotch-Weld[™] Cyanoacrylate Adhesive SF20

Product Data Sheet

Updated : February 2010 Supersedes : September 2008

Product Description

Scotch-Weld SF20 is a very fast curing, very low viscosity modified Ethyl Cyanoacrylate adhesive. It is suitable for the bonding of a very wide range of materials, including acidic surfaces and some porous ones, where rapid bonding times are required.

Key Features

SF20 is especially formulated for the bonding of plastics, rubbers, paper, leather, metals and other common substrates. SF20 relies less on surface moisture for cure speed than standard cyanoacrylates. Although SF20 has a degree of gap filling ability, it is generally recommended for use on close-fitting parts and fairly smooth, even surfaces

Physical Properties

Base	Ethyl
Soluble In	Acetone, MEK
Viscosity (cps) Cone and plate rheometer, controlled stress	Range 15-22 Typical Value 20
Specific Gravity	1.06
Colour	Clear

Performance Characteristics

Maximum Gap Fill (best results are obtained with very thin bond lines)	0.1mm
Fixture Time	3-30secs
Tensile Strength MPa (ISO 6922)	21 (Typical)
Full Cure	24hrs
Speed of Cure	The speed of cure of cyanoacrylates varies according to the substrate to be bonded. Acidic surfaces such as paper and leather will have longer cure times than most plastics and rubbers.
Moisture Resistance	Low resistance to high levels of moisture and humidity over time.
Service Temperature Range	-50 to +80°C

Additional Product Information	Scotch-Weld Activators AC11 and AC12 may be used in conjunction with Scotch-Weld cyanoacrylates where cure speed needs to be accelerated. Cure speeds of less than 2 seconds can be obtained with most Scotch-Weld cyanoacrylates. The use of an activator can reduce the final bond strength by up to 30%.
Application Techniques	Bond speed is very fast so ensure that parts are properly aligned before bonding. Scotch-Weld Activators may be required if there are gaps or porous surfaces. Some plastics may require application of Scotch-Weld AC77 Primer. Ensure parts are clean, dry and free from oil and grease. Product is normally hand applied from the bottle. Apply sparingly to one surface and press parts firmly together until handling strength is achieved. As a general rule, as little cyanoacrylate as possible should be used – over application will result in slow cure speed and lower bond strength.
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. Refridgeration 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 Offi 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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3M United Kingdom PLC 3M House, 28 Great Jackson Street, Manchester, M15 4PA Product Information :

Tel 0870 60 800 50 Fax 0870 60 700 99 3M Ireland Limited The Iveagh Building The Park, Carrickmines Dublin 18, Ireland

Customer Service:

Tel (01) 280 3555 Fax (01) 280 3509