



Scotch-WeldTM Spray 90 High Strength Adhesive

Product Data Sheet

Updated : July 2006
Supersedes : August 1995

Product Description

Scotch-Weld Spray 90 Adhesive is an aerosol adhesive designed for a wide variety of applications requiring high initial strength and fast development of ultimate strength.

In some cases, the performance of Spray Adhesive 90 is comparable to that of a conventional brush applied contact adhesive.

The bonds have excellent resistance to water and long term ageing.

Physical Properties

Not for specification purposes

Base	Synthetic Elastomer	
Solvent	Cyclohexane, Pentane and Acetone	
Flash Point	-41°C	
Propellant	Dimethyl Ether	
Contents	350g (500ml)	
Solids Content	11.0% approximately	
Colour	Clear/Pale Cream	
Shelf Life	12 months from date of receipt by customer when stored in the original carton at 21°C (70°F) & 50 % Relative Humidity	

Performance

Characteristics

Not for specification purposes

Service Temperature Range	-32°C to +80°C	
Water Resistance	Good	
Weathering Resistance	Good	
Fuel and Oil Resistance	Poor	

Strength of Adhesive

Peel Strength

Canvas (No. 10 Cotton Duck) was bonded to the following substrates by applying methylene chloride free Spray Adhesive 90 to both surfaces.

Bonds were made at a 5 minutes open time and pulled in 180° peel at the rate of 50mm per minute. Bonds were dried one day at 24°C and 3 days at 50°C before testing.

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 Scotch-Weld Spray 90 High
 Strength Adhesive

Substrate	180° Peel Strength N/cm
Aluminium	47 - 55
Cold Rolled Steel	47
Polypropylene	39 - 47
Polyethylene	19 - 24
ABS	43 - 55
Nylon	59 - 70
PVC	47 - 55
Perspex	55 - 63
Polycarbonate	63 - 71
Butyl Rubber	8 - 10
EPDM Rubber	10 - 12
Natural Rubber	5 - 6
Neoprene Rubber	6 - 8
Nitrile Rubber	4 - 5
SBR	3 - 5

Storage Conditions

Cool, dry place. Storage temperatures must not exceed 49°C. Best results are obtained when material is stored and applied at room temperature, 16°C to 27°C.

Health & Safety Information

Precautions:

Highly flammable. Vapour may be harmful. May cause eye irritation. Keep away from heat. Keep away from sources of ignition including pilot lights and sparks - No Smoking. Avoid prolonged breathing of vapours/spray. Do not use in confined areas or areas with little or no air movement. Do not spray directly into eyes. Avoid prolonged or repeated contact with the skin. Keep out of reach of children.

WARNING:

Pressurised container. Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or incandescent material.

First Aid:

Eye Contact:

Rinse immediately with plenty of water and seek medical advice.

Skin Contact:

Wash with soap and water.

For further information please contact our Toxicology Department at the Bracknell Head Office on (01344) 858000.

Applications

Spray 90 Adhesive is suitable for bonding most lightweight materials, woods, rubber, glass and many other lightweight materials including upholstery foam and fabrics.

It will also bond hard to hold materials such as some decorative laminates and veneer edging, polypropylene and polyethylene.

Suitable for bonding supported vinyl, but should be checked for plasticiser migration.

Directions for Use

Ensure all surfaces to be bonded are clean, dry and free from dust, oil or grease before application of adhesive.

Ensure that the nozzle points away from all persons and towards the surface to be sprayed. Select the spray pattern required by turning the nozzle between the "L" and "H" positions indicated on the plastic collar. Do not try to force the nozzle beyond these settings. This also changes the spray pattern width as follows:

Low Setting - approx 2cm wide.

High Setting - approx 7cm wide.

Shake the can well before using, 5-10 seconds should be sufficient.

Hold the can 12 to 18 cm from the surface to be sprayed. A narrowing of the pattern will occur if held more than 18cm from the surface to be sprayed.

When spraying, depress the nozzle fully to avoid spluttering or dripping of adhesive.

For best results apply Spray 90 Adhesive to both bonding surfaces. Bonds can be made approximately 30 seconds after application. To achieve high initial strength allow 2 to 3 minutes before bonding for ultimate initial strength allow 5 to 10 minutes before bonding. All bonds must be made within 10 to 15 minutes after application.

For lightweight materials it is usually only necessary to coat one surface, the least porous, bonds should be made whilst adhesive is wet/aggressively tacky, usually within 1 minute of application.

After bringing surfaces together, press firmly.

To prevent nozzle from blocking, at the end of each day turn the can upside down and press tip until spray is clear from adhesive and wipe tip.

Clean Up:

Spray nozzle or excess material may be cleaned with Scotch-Grip Solvent No. 1.

NOTE: Scotch-Grip Solvent No. 1 is highly flammable. When using solvents for clean up it is essential that proper safety precautions are observed.

Coverage:

Approximately 3.7 square metres per container.

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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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