

Two-Component Structural Adhesives

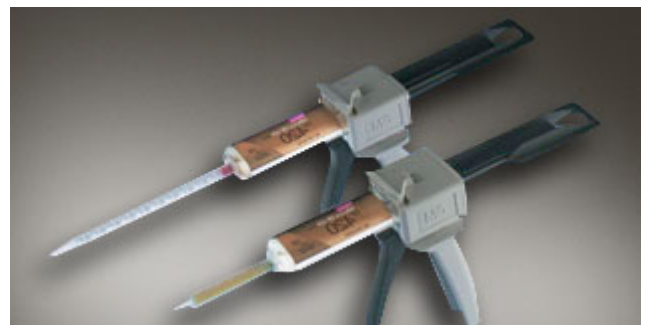
3M™ Scotch-Weld™ Two-Component Structural Adhesives



These are adhesives based on epoxy resin, acrylic or polyurethane. They are formulated for various materials and applications demanding a strong and durable bond.

Proper mixing of the two components in the specified ratio will start the hardening reaction (netting) resulting in a reliable and structurally strong bond.

Thanks to a two-chamber cartouche the adhesive is pressed out in the specified ratio. The cartouche mouth is fitted with a mixing nozzle which mixes the adhesive before it gets to the bonded surface.



This system prevents the adhesive components from mixing in an improper ratio and it provides a perfect mixing which is necessary for proper adhesive hardening.

To make the use of these adhesive easier and more efficient 3M™ introduced the EPX™ system to the market.

The application of Scotch-Weld™ EPX™ adhesives is very fast, easy and economical thanks to a clever system of cartouches and nozzles.



3M™ Scotch-Weld™ Structural Adhesives

- bond various materials
- suitable for fine repairs
- high strength bonds

- by bonding larger surfaces the spot stress is reduced (fasteners, rivets, welding spots)
- a layer of the adhesive separates the materials, which prevents electrolytical corrosion
- 3M™ Scotch-Weld™ EPX™ adhesives are available in a practical two-chamber cartouche

Two-Component Structural Adhesives

Type	Mixing ratio	Color	Processing time	Strength reaching time	Peel strength Aluminum (N/cm)	Shear strength			Typical materials	Properties
						-55°C	23°C	82°C		
1838B/A	5:4	green	60 min	8 hrs	7	10.3	20.7	3.4	Metals	Resistant to oils and fuels.
2216B/A	3:2	light gray	90 min	8-12 hrs	44	13.8	17.2	2.8	Metals, plastics, wood, glass, rubber	Flexible adhesive, outstanding impact resistance.
3520B/A	1:1	clear	90 min	8-10 hrs	7	14	17.5	2.8	Metals, plastics	Outstanding environmental resistance.
3532B/A	1:1	brown	5-10 min	25-30 min	35	17.2 (-40°C)	13.8	2.1	Plastics, wood	Fast, strong, flexible, excellent for plastics.
9323B/A	29:100	orange	90-120 min	2-4 hrs	58	37.9	36.2	22.1	Metals, plastics, composites	Outstanding strength on metals.
7231B/A	10:7	gray	60-120 min	6-8 hrs	Bond strength is higher than cohesion strength of material.				PVC, rubber and other flooring materials	Developed specifically for bonding flooring materials. E.g. in the means of public transport.

Scotch-Weld™ EPX™ Products

Type	Color	Properties	Mixing ratio (B:A)	Processing time (min)	Strength reaching time	Viscosity	Shear strength (aluminum/MPa)			Peel strength (aluminum-N/cm)
							-55°C	23°C	82°C	
DP100	almost clear	very fast	1:1	3-5	15	liquid	6.5	9	2.1	4
DP105	clear	highly clear, flexible	1:1	4-6	20	very liquid	24.6	14	2.1	62
DP110	transparent	outstanding properties for bonding metals	1:1	8-10	20	controlled dosage	14.0	17.6	1.3	35
DP125	gray	flexible	1:1	25	150	controlled dosage	23.9	30.2	2.8	62.5
DP190	gray	pressure resistant	1:1	90	240-360	controlled dosage	10.5	17.6	2.8	53
DP270	clear/black	does not cause corrosion of copper	1:1	60-70	240-420	liquid	8.4	17.2	2.1	3
DP410	gray	outstanding durability	2:1	8-10	30	thixotropic	28.9	34	8.4	100
DP460	beige	outstanding durability	2:1	60	240-360	controlled dosage	31.6	31.5	4.9	105
DP490	black	suitable also for higher temperatures	2:1	180	240	thixotropic	23.7	30.2	11.8	92
DP609	beige	polyurethane	1:1	7	30	thixotropic	17.5*	14	2.1	35
DP610	white	polyurethane	1:1	10	60	liquid	33.9*	22.9	2.7	78
DP760	white	temp resistance up to 175°C	2:1	60-80	480	paste	21.9	30.4	25.9	160
DP801	green	akrylate	1:1	2-4	7	controlled dosage		13		101
DP810	green	akrylate	1:1	8-10	10	controlled dosage	8.5	29.9	3.5	52.6
DP8005	white	bonding of PP and PE	10:1	4	20	paste		7.9	5.7	30

Note: *(-40°C)

