3M™ Scotch-Weld™ Structural Adhesives



Product number	DP100 Plus	DP110	DP125	DP190	DP410	DP460	DP490	DP609	DP8005	DP8010	DP8405NS	DP8410NS	7240FR
Properties/suitable for	Multi-purpose adhesive	General purpose flexible bonds	General purpose flexible bonds	High flexibility and elongation	Vibration and impact	Vibration and impact	Vibration and impact	Especially for plastics and wood	Bonds PP and PE	Bonds PP and PE	High-impact adhesion to most plastics	High-impact adhesion to most plastics	For thicker adhesive layers
Key features (info box)	ⓘ	ⓘ	ⓘ	ⓘ	ⓘ	ⓘ	ⓘ	ⓘ	ⓘ	ⓘ	ⓘ	ⓘ	ⓘ

Physical and Performance Characteristics, Key Features

Product number	DP100 Plus	DP110	DP125	DP190	DP410	DP460	DP490	DP609	DP8005	DP8010	DP8405NS	DP8410NS	7240FR
Base	Flexible Epoxy	Flexible Epoxy	Flexible Epoxy	Flexible Epoxy	Toughened Epoxy	Toughened Epoxy	Toughened Epoxy	Flexible Polyurethane	Low Surface Energie Acrylic	Low Surface Energie Acrylic	MMA Acrylic	MMA Acrylic	Toughened Epoxy
Colour	Clear	Translucent, grey	Grey	Grey	Beige	Beige	Black	Beige	Black, translucent	Blue	Green	Green	Grey
Approx. work life [min] ⓘ	4	8	25	90	12	60	90	7	3	10	5	10	45
Approx. time to handling strength [min] ⓘ	20	20	150	480 - 720	30	240 - 360	240 - 360	60	30	60	14 - 16	16 - 20	360
Viscosity	Fluid	Controlled flow	Controlled flow	Controlled flow	Low flow	Controlled flow	Thixotropic	Low flow	Thixotropic low	Thixotropic	Thixotropic	Thixotropic	Thixotropic
Overlap shear strength [MPa] ⓘ	24	17	24	17.6	38	31	31	14	7	13.5	30	25.6	28
Surface energy ⓘ													
High	++	++	++	++	++	++	++	++	++	++	++	++	++
Medium	+	+	+	+	+	+	+	+	++	++	++	++	-
Low	-	-	-	-	-	-	-	-	++	++	-	-	-
Static and dynamic loads (vibration and impact) ⓘ					●	●	●				●	●	
Bonding of electronic components ⓘ						●							
Bonding of materials with different dilatation (thermal expansion) ⓘ													
Medium thermal expansion (e.g. plastic to plastic)		●											
Higher thermal expansion (e.g. metal to plastic)	●			●									
Bonding of polypropylene, polyethylene, TPE ⓘ									●	●			
Flame retardant bonding ⓘ													●

Suggested Applications

Product number	DP100 Plus	DP110	DP125	DP190	DP410	DP460	DP490	DP609	DP8005	DP8010	DP8405NS	DP8410NS	7240FR
General attachment applications in a variety of industries	●	●	●										
Fast potting agent good for applications with thermal cycling	●												
Bond metal, ceramic, wood and many plastic		●	●										
Semi-flexible potting compound				●									
Transportation applications, such as rail and automotive					●	●	●						
Use when toughness and high strength are needed					●	●	●						
Bonding of electronic components						●							
Aerospace applications							●						
Bond plastic, wood and painted or primed metal								●					
Bond low surface energy plastics such as polypropylene, polyethylene and thermoplastic elastomers (TPEs)									●	●			
Joining plastics to metals, such as in the manufacture or repair of appliances									●	●			
Impact resistance composite bonding									●	●			
Metalworking such as HVAC, appliance, and specialty vehicles											●	●	
Sign manufacturing such as panel to frame bonding, trim attachment, letter bonding, and frame assembly											●	●	
Bonding plastics, composites and powder coats to metal											●	●	
Typically used where fast assembly of smaller parts is required											●	●	
Adhesive certified for use on trains													●
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