

Acrylics, Epoxies, Polyurethanes, & Hybrid Adhesives: More Than Just One Brand & One Solution

Structural Bonding Applications



Transportation

- Body Panel Bonding
- Battery Enclosures & EV Components
- Cab & Chassis Assembly



Industrial Equipment

- Pumping Housings
- Panels
- Enclosures



Aerospace

- Interior Panel Bonding
- Composite-to-Metal Bonding
- Access Panels & Fairings



Appliances

- Acoustic Damping
- Panel Bonding
- Energy Efficiency

At ITW Performance Polymers, structural bonding is more than just our Plexus® acrylic adhesives. While our acrylics are renowned for their exceptional strength and rapid cure times, our capabilities extend far beyond.

We offer a diverse portfolio of advanced adhesive technologies – including epoxies, polyurethanes, and hybrid systems – engineered to tackle even the most demanding bonding challenges across industries.

Whether you're seeking durability, flexibility, chemical resistance, or performance under extreme conditions, we deliver customized solutions that go beyond expectations. Each chemistry brings unique advantages – and when selected strategically, it can unlock performance, cost savings, and design flexibility in a wide range of markets.

Benefits of Each Chemistry

Acrylics

- Fast fixture times and strength buildup
- Excellent for dissimilar materials (e.g., metal to composite)
- Ideal for high-throughput production lines

Epoxies

- Exceptional chemical & heat resistance
- Outstanding adhesion to metals, ceramics, and composites
- Suitable for demanding structural & load-bearing applications

Polyurethanes

- Flexible bonding with high peel resistance
- Performs well on plastics & soft substrates
- Durable in vibration and thermal cycling environments

Hybrids

- Uniquely flexible yet tough bond
- Provides a seal-like bond
- Excellent UV protection

Proven Chemistries. Engineered Results.

Refer to our [Technical Data Sheet](#) and [Safety Data Sheet](#) for additional technical and safety information.

Don't Limit Your Options. Choose the Chemistry That Works Best.

Product	Brand	Chemistry	Description	Mix Ratio	Working Time (RT) min.	Fixture Time (RT) min.	Tensile Strength psi (MPa)	Tensile Modulus ksi (MPa)	Tensile Elongation %	Max. Gap Fill in. (mm)	Mixed Viscosity, (cP* x 10 ³)
MA8120	Plexus	Acrylic	Low Odor, High Toughness, Primer-Less to Metal	1:1	18 - 22	75 - 90	2900 - 3600 (20 - 25)	157 - 213 (1082 - 1468)	30 - 60	0.5 (12.7)	75
MA420W	Plexus	Acrylic	All Purpose, High Strength, High Toughness	10:1	3 - 4	13 - 15	2610 - 3190 (18 - 22)	170 - 230 (1172 - 1585)	20 - 40	0.375 (9.5)	88
MA806	Plexus	Acrylic	All Purpose, High Toughness, Snap Cure	10:1	5 - 7	11 - 12	1674 - 2046 (11.5 - 14.1)	73 - 98 (502 - 679)	80 - 140	0.25 (6.35)	90
MA7020	Plexus	Acrylic	Non-flammable, High Toughness, High Strength	4:1	15 - 20	130 - 140	1475 - 1800 (10 - 12.5)	105 - 143 (724 - 986)	70 - 110	0.125 (3.18)	348
HP250	Devcon	Epoxy	High Performance, High Shear Strength, Impact Resistant	2:1	65	360	2900 - 3200 (20 - 22)	165 - 189 (1137 - 1303)	15 - 25	0.375 (9.5)	92
EP25	Devcon	Epoxy	Rubber-Toughened, High Viscosity, Impact & Peel Resistance	1:1	25	120	2750 (19)	175 - 223 (1207 - 1538)	20 - 30	0.25 (6.35)	80
DT2325	Plexus	PU	Primer-Less to Metal, No Odor, Low Shrink, Non-Flammable	1:1	20 - 30	240	1,000 - 1,500 (6.9 - 10.3)	40 - 60 (275 - 413)	150	0.5 (12.7)	75
HA1820	Plexus	Hybrid	High Elongation, High Peel & Shear Strength with a Flexible Bond	2:1	20 - 25	120	800 - 1,000 (5.5 - 6.9)	0.8 - 1.0 (5.5 - 6.9)	120 - 200	0.5 (12.7)	76

		Metals & Coatings						Plastics				Composites				Other			
Product		Aluminium	Cold Rolled Steel	Galvanized/ Zinc Coated	Stainless Steel	Powdercoat	E-Coat	ABS, ASA, PMMA	Polyamides (Nylons)	Polycarbonate	Rigid PVC	Fibreglass / Carbon Fibre	DCPD	Core Composite Panel	SMC	Rubber & TPES	Concrete	Ceramic	Glass
MA8120	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
MA420W	●*	●*		●*	●	●	●		●	●	●	●	●	●	●	●	●		
MMA806	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
MA7020	●	●	●	●	●	●	●	●				●	●	●			●	●	
HP250	●	●	●	●	●	●	●	●	●	●	●	●	●	●			●	●	
EP25	●	●	●	●	●	●	●	●	●	●	●	●	●	●			●	●	
DT2325	●	●	●	●	●	●			●			●			●	●	●	●	●
HA1820	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● Preferred: Favorable failure mode/Performs as intended (cohesive or substrate failure)

● Good: Typically can bond. May require surface prep or varies from material to material within that class. Recommend consulting ITW Performance Polymers Tech Services.

Blank: Not recommended. * Use PC-120 cleaner / conditioner

The technical information, recommendations and other statements contained in this sheet are based upon good faith tests or experience that ITW Performance Polymers believes are reliable, but the accuracy or completeness of such information is not guaranteed. The information is not intended to substitute for the customers' own testing.

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