

## marine

Our structural adhesive systems are perfect for the marine industry because they need little or no surface preparation therefore reducing dust emissions and increasing production speed. They can be used for a variety of applications including composite stringers, liners and deck to hull bonding. This is why companies like Sunseeker International, Formula Fastech, Azimut, Victory Team and Northshore Yachts are all users of our adhesives.

- Outperforms laminated joints
- Reduces cracking and crazing of gel-coats
- Faster and easier assembly
- Variety of open and working times to suit all your applications
- Gap filling up to 37mm



## transport

Rail, bus, coach and truck companies such as Alstom, Bombardier, Volvo, Virgin and NABI use our adhesives in various ways. They choose us for bonding floating floors and modular washrooms in railway carriages, composite body panels in buses and coaches as well as the doors, headlamp surrounds and front grills for trucks.

Our products are popular because of reliability and ease of use. These are some of the reasons our transport customers choose us time and time again:

- Rapid cure at room temperature reduces production time
- Resistant to oil and diesel
- Reduced VOC emissions
- Bonding of dissimilar substrates
- Virtually no surface preparation
- Excellent fatigue resistance

## automotive

Car manufacturers like Ford, GM, Rover, Chrysler, Saab and Land Rover use Plexus Structural Adhesives. Our products can bond bumpers, spoilers, dash boards, body panels, front grills etc. But as well as that, our structural adhesives are fully regrind compatible, so plastic components can be recycled without the need for cutting out the joints. In fact thousands of car bumpers bonded with Plexus Adhesives have already been recycled.

- Speeds production
- Bonds dissimilar substrates
- High strength & durability
- Proven application history

## engineered construction

Specialist solutions, that's what we offer to our customers. It means that we work with them to develop the right adhesive solution to meet their individual production requirements.

We have a proven track record of bonding composite and thermoplastic doors, GRP architectural features, pultruded bridges, GRP tanks and more.

- Room temperature curing
- Superior performance bonding dissimilar substrates
- Working and fixture times to suit all your applications
- UV stable
- Excellent chemical resistance



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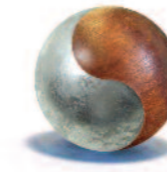
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Exceptional Strength



High Impact Resistance



Excellent Fatigue Properties

inspired bonding solutions



selector chart

**ITW PLEXUS**  
Structural Adhesives

**ITW PLEXUS**  
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# inspired bonding solutions

metals plastics composites

Exceptional Strength

High Impact Resistance

Excellent Fatigue Properties

Would you like to improve your productivity and create better value products? The answer could be in your structural adhesive. Our team understands how demanding today's production environment can be, that's why we pride ourselves on providing you with options and innovative solutions, no matter what industry you're in.

We'll use our experience and support services to make the right choices for you and your business.



## Laboratory testing for technical solutions and support

Our European Technical Centre is an excellent facility. It is designed to offer support and service for all our customers' technical requirements. Our fully equipped laboratory is part of the centre and it's in this lab that we carry out tensile, impact, fatigue\*, thermal, climatic and environmental testing on our customers own substrates. So there's nothing general about our adhesive selection processes, it's all about your unique requirements. The lab also has the facility to test primary and secondary adhesive characteristics, so quality is ensured at all times.

\*Carried out in our technical lab in Danvers (USA).

## How to use the chart selector

The chart contains information on most of our adhesive products. Everything is on there, from a short description and the colour of the product to the fixture time and strength. This chart is designed to assist you in choosing the correct adhesive for your substrate. Look along the horizontal line and all the substrates with ticks in their boxes can be bonded together using that adhesive. i.e. MA300 will bond aluminium to itself and to sheet metal or stainless steel etc.

Due to the many potential variations in substrates and surface chemistries, ITW Plexus strongly recommends all substrates be tested with the selected adhesive in the anticipated service conditions to determine suitability.

Please contact our technical department at [technical@itwplexus.co.uk](mailto:technical@itwplexus.co.uk) if you have any questions or you'd like more information about our comprehensive range of adhesive products.

Adhesive	Description	Colour	Mix ratio (by volume)	Viscosity (cps)	Working time (mins)	Fixture time (mins)	Shear strength (MPa)	Tensile elongation (%)	Gap fill (mm)	SUBSTRATE																									
										ALUMINIUM	BRASS	CAST IRON	COPPER	FERRITE	PAINTED / COATED METALS	PLATED METALS	SHEET METAL	STAINLESS STEEL	COLD ROLLED STEEL	GALVANIZED	ABS	ACRYLICS (PMMA)	POLYAMIDES (NYLONS)	POLYESTERS (PBI/PET)	POLYCARBONATE	VINYLS (PVC)	POLYURETHANES	FIBREGLASS	GELCOATS	SMC	PHENOLICS	LAMINATES	RTM	RUBBER	
<b>MA300</b>	All purpose high strength	Cream	1:1	A: 40,000 - 60,000 B: 40,000 - 60,000	4 - 6	12 - 15	20.6 - 24.1	15 - 25	4	✓							✓	✓	✓	✓	✓	✓									✓				
<b>MA310</b>	Ideal for 'difficult to bond plastics'	Cream / Black	1:1	A: 40,000 - 60,000 B: 40,000 - 60,000	15 - 18	30 - 35	20.6 - 24.1	5 - 15	4			✓					✓	✓	✓	✓	✓	✓								✓					
<b>MA320</b>	Excellent low temperature properties	Off White / White	10:1	A: 135,000 - 175,000 B: 40,000 - 60,000	8 - 12	25 - 30	10.3 - 13.7	100 - 140	10								✓	✓				✓	✓	✓	✓										
<b>MA420</b>	All purpose toughened adhesive	Blue / Black / Cream	10:1	A: 100,000 - 125,000 B: 25,000 - 35,000	4 - 6	15 - 18	12 - 15.5	100 - 125	8	✓							✓	✓	✓	✓	✓	✓							✓						
<b>MA420FS</b>	Fast setting adhesive	Blue	10:1	A: 80,000 - 100,000 B: 35,000 - 55,000	1 - 2	3 - 4	8.9 - 11	5 - 15	4								✓	✓				✓	✓	✓											
<b>MA422</b>	All purpose, with medium open time	Blue	10:1	A: 100,000 - 125,000 B: 40,000 - 60,000	17 - 24	35 - 40	10.3 - 12.4	75 - 100	10	✓							✓	✓	✓			✓	✓	✓	✓	✓			✓						
<b>MA425</b>	All purpose, with long open time	Blue	10:1	A: 100,000 - 125,000 B: 40,000 - 60,000	30 - 35	80 - 90	10.3 - 12.4	120 - 140	10	✓							✓	✓	✓			✓	✓	✓	✓	✓			✓						
<b>MA530</b>	All purpose, high strength, medium open time	Grey	1:1	A: 160,000 - 180,000 B: 175,000 - 210,000	30 - 35	90 - 160	13.1 - 15.2	130 - 170	18								✓	✓	✓			✓	✓	✓	✓				✓						
<b>MA550</b>	Marine adhesive, white UV stable	White	10:1	A: 130,000 - 160,000 B: 40,000 - 60,000	40 - 45	70 - 75	8.9 - 12.4	35 - 45	10								✓	✓	✓			✓	✓	✓	✓				✓						
<b>MA556</b>	Non swim/sag, large gap fill marine adhesive	Blue	10:1	A: 190,000 - 220,000 B: 40,000 - 60,000	40 - 45	110 - 120	8.6 - 10.3	140 - 160	25*								✓	✓	✓			✓	✓	✓	✓				✓						
<b>MA560-1</b>	All purpose, high strength, long open time	Grey	1:1	A: 145,000 - 185,000 B: 175,000 - 210,000	55 - 70	160 - 190	11.7 - 15.2	> 130	25								✓	✓	✓			✓	✓	✓	✓				✓						
<b>MA590</b>	All purpose, long open time, high gap fill	Grey	1:1	A: 175,000 - 220,000 B: 175,000 - 210,000	90 - 105	210 - 270	9.6 - 12.4	130 - 160	37								✓	✓	✓			✓	✓	✓	✓				✓						
<b>MA830</b>	Metal bonder	Grey	10:1	A: 90,000 - 120,000 B: 25,000 - 35,000	4 - 6	20 - 25	15.8 - 19.3	30 - 60	12	✓		✓					✓	✓	✓	✓	✓	✓	✓	✓											✓
<b>MA832</b>	Metal Bonder with medium open time	Grey	10:1	A: 90,000 - 120,000 B: 25,000 - 35,000	12 - 16	50 - 60	15.8 - 19.3	30 - 60	12	✓		✓					✓	✓	✓	✓	✓	✓	✓	✓											✓
<b>MA890</b>	Galvanised steel bonder	Grey	10:1	A: 68,000 - 72,000 B: Paste	8 - 10	20 - 25	10 - 13	30 - 35	4	✓	✓		✓				✓	✓	✓	✓	✓	✓	✓	✓											✓
<b>MA920</b>	Low odour general purpose	Blue	10:1	A: 100,000 - 125,000 B: 25,000 - 35,000	4 - 6	15 - 18	10.3 - 13.7	80 - 100	10	✓							✓	✓	✓			✓	✓	✓	✓				✓						✓
<b>MA1020</b>	Very low shrink all purpose adhesive	Blue	10:1	A: 100,000 - 125,000 B: 25,000 - 35,000	4 - 6	15 - 20	8.6 - 11	90 - 110	10	✓							✓	✓	✓			✓	✓	✓	✓				✓						✓
<b>MA1025</b>	Low shrink/odour high gap fill	Blue	10:1	A: 180,000 - 220,000 B: 40,000 - 60,000	20 - 25	40 - 45	5.8 - 8.2	90 - 110	25*	✓							✓	✓	✓			✓	✓	✓	✓				✓						✓
<b>MA3940</b>	Excellent for craze sensitive plastics	Off White	10:1	A: 135,000 - 175,000 B: 40,000 - 60,000	12 - 15	25 - 30	10.3 - 13.7	125 - 175	10								✓	✓	✓			✓	✓	✓	✓										
<b>MA3940LH</b>	All purpose fast setting adhesive	Blue	10:1	A: 120,000 - 160,000 B: 35,000 - 55,000	4 - 5	8 - 10	9.5 - 11	75 - 100	4								✓	✓	✓	✓	✓	✓	✓	✓	✓										

\*Recommend minimum bondline thickness of 2mm.  
Also available PC120 Primer / Conditioner - enhances adhesion and durability of Plexus adhesives when bonding aluminium and stainless steel (does not prevent corrosion).  
The above table provides a sample of the products available please contact the Plexus technical department for details of our extended range of products.

metals

plastics

composites