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TOP PLAST ECO– TECHNICAL DATA

Nominal Components Properties

	TOP PLAST ECO ADHESIVE		TOP PLAST ECO HARDENER 50 sec	
Chemical Base	Reactive Isocyanate Prepolymer		Reactive Polyol Mixture	
Colour	Clear		Clear	
Specific Gravity (g/cm^3)	~ 1,16		~ 1,10	
Viscosity (mPas)	~ 55.000		~ 68.000	
Appearance	Sag Resistant Paste		Sag Resistant Paste	

	TOP PLAST ECO 50 sec transparent	
Open time (at +23°C)	50sec	
Processable (at +23°C)	50sec	
Sandable (at +23°C)	10 minutes	
Tensile strength, ASTM D-638, at +23°C	DIN 53504 @ 23°C [MPal]	20
Young's Modulus, ASTM D-638, at +23°C	DIN 53504 @ 23°C [MPal]	120
Elongation, ASTM D-638	DIN 53504 @ 23°C [%]	58
Water Absorption, ASTM D-570		
Shore hardness D, ASTM D-2240	EN ISO 868 @ 23°C	68
Shrinkage, ASTM C-733	n.a.	
Tan Delta Peak	40°C	
Catalysis	Exothermic	
Minimum thickness	0,25mm	
Maximum thickness	12mm	
Paint Bake	OK	
Filling properties	Good	
Consumption, 1/4" Diameter Round Bead	Cm per liter = 3157	
Consumption, 1/2" Diameter Round Bead	Cm per liter = 789	
Shelf life	12 months	

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Lap Shear Information

	Pretreatment					
Substrate	**Cleaning**	**Sanding**	**Cleaning**	**Bondline thickness**	**Expected failure mode**	**Average strength**
PP	IPA	P120	IPA	1mm	Adhesive	4,60 MPa
PMMA	IPA	P120	IPA	1mm	Substrate	4,00 MPa
PVC	IPA	P120	IPA	1mm	Subsrate	4,13 MPa
ABS/PC	IPA	P120	IPA	1mm	Adhesive	4,75 MPa
ABS/G	IPA	P120	IPA	1mm	Adhesive	5,39 MPa
Carbon	IPA	P120	IPA	1mm	Substrate	14,14 MPa
PP/EPDM	IPA	P120	IPA	1mm	Adhesive	2,00 MPa
PA 6	IPA	P120	IPA	1mm	Adhesive	3,59 MPa
E-Coat	IPA	P800	IPA	1mm	Coating	7,12 MPa

Substrate	**Surface preparation for catalysis at room temperature**	**Surface preparation for hot catalysis**	**General Adhesion**	**Possible Bonding failures**
SMC, BMC, RTM, Gel Coat, Wood, HPL, PUR-RIM	Sand	Not needed	Excellent	Substrate breakage
Carbon Fiber Reinforced Plastic (CFRP)	Sand	Not needed	Excellent	Substrate breakage
Painted or primed metals or metal alloys	None	Not needed	Excellent	Coating failure
HLU, HSU	Sand	Mainly sanding	Good	Substrate breakage/ coating/ adhesive
Thermoplastics A (ABS, PA, PC/PBT, PPO/PA, PET)	Sand or clean with solvent	Mainly none	Very good	Substrate breakage
Thermoplastics B (PPO, PC/ABS, PP/EPDM)	Solvent, cleaner or primer	Solvent, cleaner or primer	Good/poor	Substrate breakage/ coating/ adhesive
Thermoplastics C (PTFE, PP, PE, PVC, PPS, POM)	Physical pre-treatment (flame, plasma)	Physical pre-treatment (flame, plasma)	Limited	Poor adhesion (adhesive)