

Weld-On® Adhesives Competitor Comparison

Weld-On versus Lord® and ASI®

	Weld-On 45	Weld-On 30	Weld-On 31	Weld-On 32	Lord 406-19	ASI MP55420
Color	Off White / Tan	Off White	Off White	Off White	Off White to Tan Paste	Off White to Amber Shell
Ratio (Volume)	4 to 1	10 to 1	10 to 1	10 to 1	2:1 or 4:1	1:1
Working Time	5 - 6 Minutes	4 - 5 Minutes	13 - 17 Minutes	25 - 35 Minutes	6 - 10 Minutes	4 - 6 Minutes
Fixture Time (Time to reach 80% Strength)	15 Minutes	15 - 20 Minutes	30 - 40 Minutes	50 - 70 Minutes	12 - 17 Minutes	10 - 15 Minutes
Time to reach Ultimate Bond Strength	24 Hours	24 Hours	24 Hours	24 Hours	24 Hours	Not mentioned
Viscosity	400K - 600K cps	A Comp: 225K cps B Comp: 150K cps	A Comp: 225K cps B Comp: 150K cps	A Comp: 225K cps B Comp: 150K cps	100k - 300K cps	50K cps
Surface Prep (Aluminum)	Solvent wipe	Solvent wipe	Solvent wipe	Solvent wipe	Dry rag wipe	No surface prep
Bond Strength (Aluminum)	2200 PSI	2550 PSI	2550 PSI	2550 PSI	3000 PSI	>2500 PSI
Tensile Strength	2600 PSI	2000 PSI	2000 PSI	2000 PSI	2700 PSI	>2500 PSI
Tensile Elongation	27%	50%	50%	50%	30%	36%
Sag (75° F)	Minimal	None	None	None	Significant	Excessive
Approvals / Certifications	UL 746C (FRP/Aluminum)	UL 746C (Aluminum/Coated Steel)	UL 746C (FRP/Aluminum)	UL 746C (FRP/Aluminum)	UL 746C	Not mentioned
Product Description	Two Part 4:1 Structural adhesive, room temperature cure, high temperature strength.	Two Part 10:1 Structural adhesive, room temperature cure, rapid strength development.	Two Part 10:1 Structural adhesive, with extended working time, excellent impact & fatigue resistance.	Two Part 10:1 Structural adhesive, with extra long working time, excellent impact & fatigue resistance.	Two Part 4:1 Structural adhesive, withstands thermal cycling, chemical and environmental resistance.	Two Part 10:1 Structural adhesive, room temperature cure.
Bonding Recommendations	Parts with small bond line gap and length (< 1/8" gap and < 3 foot length)	Parts with small bond line gap and length (< 1/8" gap and < 3 foot length)	Parts with medium bond line gap and length (< 1/4" gap and < 10 foot length)	Parts with medium bond line gap and large bonding area (< 1/4" gap and < 40 foot length)	Parts with small bond line gap and length (< 1/8" gap and < 3 foot length)	Parts with small bond line gap and length (< 1/8" gap and < 3 foot length)
Substrate Recommendations	Plastics, metals and composites. Cross bonds plastics to metals, composites to metals.	Plastics, metals and composites. Cross bonds plastics to metals, composites to metals.	Plastics, metals and composites. Cross bonds plastics to metals, composites to metals.	Plastics, metals and composites. Cross bonds plastics to metals, composites to metals.	Plastics, metals and composites.	Plastics, metals and composites.



Substrate / Method / Surface Prep	Adhesive Brand	Mean Strength	STD Dev	Cohesive	Adhesive	Stock Break
Aluminum to Aluminum D1002 IPA	Weld-On 30	2407	54	95%	5%	0%
	Lord 406/19	1866	66	90%	10%	0%
	Weldon 45	2033	110	100%	0%	0%
	ASI MP55420	2768	111	100%	0%	0%
CRS to CRS D1002 Sand IPA	Weld-On 30	2437	30	100%	0%	0%
	Lord 406/19	1926	432	100%	0%	0%
	Weldon 45	1788	69	100%	0%	0%
	ASI MP55420	417	194	NA	NA	NA
Stainless to Stainless D1002 IPA	Weld-On 30	2136	138	50%	50%	0%
	Lord 406/19	1644	218	5%	95%	0%
	Weldon 45	1982	7	100%	0%	0%
	ASI MP55420	2801	222	90%	10%	0%
HD Galv to HD Galv D1002 IPA	Weld-On 30	1239	121	0%	100%	0%
	Lord 406/19	1309	150	0%	100%	0%
	Weldon 45	982	110	0%	100%	0%
	ASI MP55420	103	51	NA	NA	NA
HD Galv to HD Galv D1002 IPA/MP100	Weld-On 30	2465	331	90%	10%	0%
	Lord 406/19	1635	137	90%	10%	0%
	Weldon 45	2009	66	40%	60%	0%
	ASI MP55420	76	43	NA	NA	NA
VE FRP to VE FRP D5868 IPA Wipe	Weld-On 30	2085	50	0%	0%	100%
	Lord 406/19	1175	121	90%	0%	10%
	Weldon 45	1684	107	0%	0%	100%
	ASI MP55420	2077	108	0%	0%	100%
UPR Gelcoat to UPR Gelcoat D5868 IPA Wipe	Weld-On 30	760	59	0%	0%	100%
	Lord 406/19	529	76	100%	0%	0%
	Weldon 45	532	85	0%	0%	100%
	ASI MP55420	643	60	0%	0%	100%
PVC to PVC D3163 IPA Wipe	Weld-On 30	1369	82	0%	0%	100%
	Lord 406/19	1231	86	0%	0%	100%
	Weldon 45	1034	81	0%	0%	100%
	ASI MP55420	1355	23	0%	0%	100%
ABS to ABS D3163 IPA Wipe	Weld-On 30	856	93	0%	0%	100%
	Lord 406/19	779	21	0%	34%	66%
	Weldon 45	780	13	15%	18%	66%
	ASI MP55420	896	52	0%	0%	100%
PETG to PETG D3163 IPA Wipe	Weld-On 30	1091	38	0%	0%	100%
	Lord 406/19	889	110	0%	0%	100%
	Weldon 45	905	12	0%	0%	100%
	ASI MP55420	896	52	0%	0%	100%
Polycarbonate to Polycarbonate D3163 IPA Wipe	Weld-On 30	1269	27	0%	0%	100%
	Lord 406/19	891	215	0%	34%	66%
	Weldon 45	959	75	0%	67%	33%
	ASI MP55420	1235	38	0%	0%	100%
PU Coat-Al to PU Coat-Al D1002 IPA Wipe	Weld-On 30	1771	49	90%	0%	10%
	Lord 406/19	1123	255	0%	99%	1%
	Weldon 45	1338	189	95%	0%	5%
	ASI MP55420	1750	255	85%	0%	15%
Aluminum to Aluminum D3163 IPA Wipe	Weld-On 30	2611	170	100%	0%	0%
	Lord 406/19	2414	145	100%	0%	0%
	Weldon 45	2052	85	100%	0%	0%
	ASI MP55420	2831	166	100%	0%	0%