

Description

The IRSL&LA-K series of structural adhesives are a range of high performance, room-temperature curing paste materials. They are formulated to provide durable structural bonds on a wide variety of substrates. IRSL&L A-K083 and IRSL&L A-K085 are two-component adhesives based on methyl methacrylate (MMA) and are specifically formulated for improved bonding to plastic substrates. Originally developed for the automotive industry, these adhesives provide superior bond strength whilst adding very little weight to the completed product. Both adhesives are fast-curing, high-strength and impact resistant. They provide primerless adhesion to most metals, thermoplastics and composites.

Features & Benefits

- Convenient 1:1 mix ratio
- Robust primerless adhesion to composites and metals for optimum structural performance
- Non-flammable and low odour for improved occupational health and safety
- No shrinkage for reduced rework on bonded structures
- High tensile strength and elongation
- Cures quickly at room temperature
- Good resistance to common industrial chemicals, weathering, salt spray and ultraviolet radiation.

Specifications



	IRSL&LA-K083		IRSL&LA-K085	
Appearance	Tan thixotropic paste	Black thixotropic paste	Tan thixotropic paste	
Cured colour	Amber	Black	Amber	
Mix ratio	1:1	1:1	1:1	
Working time	5-7 minutes	5-7 minutes	9-12 minutes	
Fixture time	9-12 minutes	9-12 minutes	12-15 minutes	
Viscosity	Part A: 50,000-90,000 cPs Part B: 90,000-140,000 cPs	Part A: 50,000-90,000 cPs Part B: 90,000-140,000 cPs	Part A: 120,000- 160,000 cPs Part B:150,000- 200,000 cPs	
Mixed density	0.97 kg/L	0.97 kg/L	0.97 kg/L	
Service temperature	-50° to 120°C	-50° to 120°C	-50° to 120°C	
Tensile strength	24.3 MPa	24.3 MPa	22.6 MPa	
Modulus	1,670 MPa	1,670 MPa	1,550 MPa	



	IRSL&LA-K083	IRSL&LA-K083-Black	IRSL&LA-K085
Elongation at break	8-15%	8-15%	10-20%

Substrate	Surface Prep	7.2	Shear , [psi])	0	5	10	15	20	25
Carbon Steel ⁵	None	20.0	[2900]		0				
Stainless Steel ⁵	None	24.4	[3550]		- 4				
Electrogalvanized Steel ⁵	None	16.4	[2350]						
Hot-dip Galv. Steel ⁵	None	16.3	[2350]						
Aluminium 5754 ⁵	None	15.4	[2250]						
ABS	None	7.3	[1050]						
Fibreglass	None	9.1	[1300]			e e			
Sheet-molded Composite	None	2.0	[300]		-1	70			

Lap shear results for IRSL&L A-K083





Substrate	Surface Prep		Shear , [psi])	0	5	10	15	20	25
Carbon Steel⁵	None	17.7	[2550]	Œ					1
Stainless Steel ⁵	None	23.5	[3400]			1/4			
Electrogalvanized Steel ⁵	None	16.6	[2400]						
Hot-dip Galv. Steel ⁵	None	14.4	[2100]	10	1				
Aluminium 57545	None	15.8	[2300]	63					
AES	None	6.2	[900]				10,100		
Fibreglass	None	10.3	[1500]						
Sheet-molded Composite	None	2.1	[300]		-				

Lap shear results for IRSL&L A-K085

Ordering Information

Part number	Description	



Part number	Description
IRSL&LA-K083-50ML	A-K083 structural adhesive, fast cure, amber colour – 50ml cartridge with mixing nozzle
IRSL&LA-K083-400ML	A-K083 structural adhesive, fast cure, amber colour – 400ml cartridge with mixing nozzle
IRSL&LA-K083-KIT	A-K083 starter kit, including 1 x IRSL&LA-K083- 50ML Double Syringe Cartridge, 1 x IDM805001 Syringe Gun, and 3 x IDMSMTW7-16 Mixing Nozzles
IRSL&LA-K083BLACK-50ML	A-K083 structural adhesive, fast cure, black colour – 50ml cartridge with mixing nozzle
IRSL&LA-K083BLACK-KIT	A-K083BLACK starter kit, including 1 x IRSL&LA- K083BLACK-50ML Double Syringe Cartridge, 1 x IDM805001 Syringe Gun, and 3 x IDMSMTW7-16 Mixing Nozzles
IRSL&LA-K085-50ML	A-K085 structural adhesive, fast cure, amber colour – 50ml cartridge with mixing nozzle
IRSL&LA-K085-400ML	A-K085 structural adhesive, fast cure, amber colour – 400ml cartridge with mixing nozzle



Part number	Description
IRSL&LA-K085-KIT	A-K085 starter kit, including 1 x IRSL&LA-K085-50ML Double Syringe Cartridge, 1 x IDM805001 Syringe Gun, and 3 x IDMSMTW7-16 Mixing Nozzles
IDM805001	Dispensing gun, 50ml manual, 1:1/2:1
IDM814001	Dispensing gun, 400ml manual, 1:1/2:1
IDM824001	Dispensing gun, 400ml pneumatic, 1:1/2:1
IDMSMTW7-16	Static mixing nozzle – for 50ml cartridge – 1:1 ratio – round, twist lock
IDMSMTS9-24	Static mixing nozzle – for 200ml/400ml cartridge – 1:1/2:1 ratio – square

Supplied by:



INTERTRONICS

12a Station Field Industrial Estate, Banbury Road, Kidlington Oxfordshire England OX5 1JD t 01865 842842 e info@intertronics.co.uk



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