

PACER[®]
TECHNOLOGY

INDUSTRIAL • PRIVATE LABEL



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E Series Cyanoacrylate Adhesives

Pacer Technology General Purpose Grade E Series Cyanoacrylates are part of the original family of instant adhesives formulated to quickly bond plastics, rubber, metal and ceramic. These adhesives offer excellent strength characteristics and are available in five viscosities, from water-thin to a honey-like consistency, suitable for dispensing from the bottle or through automatic equipment.

LIQUID STATE	E-5	E-40	E-100	E-1500	E-2500
Base Chemical	Ethyl Cyanoacrylate				
Color	Clear Transparent liquid				
Flashpoint	185F / 85C				
Viscosity, cP	2-10	30-70	80-120	1300-1700	2200-2700
Typical Gap, inches	.002	.004	.005	.010	.020
Vapor Pressure, mm Hg @70C	10	10	10	10	10
Specific Gravity, @25F/-4C	1.05	1.06	1.08	1.10	1.11
Refractive Index, n _{20C/D} +/- .03	1.45	1.45	1.45	1.45	1.45
Solubility Parameter	10.8	10.7	10.7	10.7	10.7
Soluble in:	Pacer X-9 Debonder, Acetone, MEK, Nitromethane				
CURED STATE	E-5	E-40	E-100	E-1500	E-2500
Boiling Point	365F/185C	365F/185C	365F/185C	365F/185C	365F/185C
Softening Point	311F/155C	306F/153C	306F/153C	301F/150C	301F/150C
Heat Distortion	304F/151C	250F/121C	250F/121C	240F/116C	240F/116C
Glass Transition	347F/175C	342F/172C	342F/172C	340F/171C	340F/171C
Volume Shrinkage, %	15	13	13	12	12
Rockwell Hardness, M	75	74	74	72	72
Cured Temperature Range	-65F to +180F (-54C to +82C)				
Outgassing, 10 ⁻⁶ mmHg, 72F	0				
Elongation, %	<2				
Dielectric Constant, 1 mhz	3.98	3.90	3.89	3.79	3.77
Volume Resistivity, ohm-cm (x10 ¹²)	8.6	8.5	8.5	8.4	8.3
Strength data:					
Impact, ft-lbs, ASTM-950	3-5	7-10	3-5	4-6	4-6
Tensile, steel, psi, ASTM-D2095	4000 (±10%)	4700 (±10%)	4000 (±10%)	4000 (±10%)	4000 (±10%)
Tensile Shear, psi, ASTM-D1002					
Steel	2700 (±10%)	2700 (±10%)	2400 (±10%)	2200 (±10%)	2000 (±10%)
Aluminum	1600 (±10%)	1600 (±10%)	1600 (±10%)	1600 (±10%)	1600 (±10%)
ABS	SF*	SF*	SF*	SF*	SF*
Nylon	SF*	SF*	SF*	SF*	SF*
Rigid PVC	SF*	SF*	SF*	SF*	SF*
SBR	SF*	SF*	SF*	SF*	SF*
EPDM	100 (±10%)	100 (±10%)	100 (±10%)	100 (±10%)	100 (±10%)
Soluble in:	Pacer X-9 Debonder, Acetone, Nitromethane				

*substrate failure (adhesive bond stronger than substrate)



APPLICATION AND CURE CHARACTERISTICS:

For best results, parts should be clean, free from oil and grease or other contaminants. Apply adhesive to one surface to be bonded and mate the other surface to it carefully and without delay. For best results, use a minimal amount of adhesive. In general, one free-falling drop covers one square inch of bond area. Avoid over-application, as excess adhesive is difficult to remove from unwanted areas. Fixture time occurs in 1-5 minutes with 80% of full strength developing in 15-30 minutes. Fixture time and full cure rates are dependent upon temperature, relative humidity, bondline thickness, and substrates being bonded. To speed full cure through larger gaps, Pacer accelerators for instant adhesives are compatible and can be used. Post application of accelerators to exposed adhesive may cause a white frosting (chlorosis) of the exposed adhesive onto parts, which can usually be removed using Pacer X-9 Debonder and a cotton swab. Overall cure strength can be decreased as a result of using accelerators. Testing on actual parts is recommended.

Specification Compliance	E-5	E-40	E-100	E-1500	E-2500
MIL-A-46050C (Type/Class)	II/1	II/1	II/2	II/3	II/3
A-A-3097 (Commercial Spec)	II/1	II/1	II/2	II/3	II/3

STORAGE AND SHELF LIFE:

Refrigerate unopened cyanoacrylate @ 40F (4C) for optimum results. Allow adhesive to reach room temperature before opening. Once opened, store in a cool, dry location. Stored under these conditions, a one year shelf life can be expected.

SAFETY AND HANDLING PRECAUTIONS:

Cyanoacrylate adhesives bond skin in seconds. In case of skin contact, flush with water. If skin becomes bonded, peel (not pull) apart after immersion in warm, soapy water. In case of eye or mouth contact, flush with water and get immediate medical attention. Use with adequate ventilation. Vapors can irritate eyes and mucous membranes. Symptoms disappear after removal of individual from vapors. For more information, refer to Material Safety Data Sheet, available upon request.

Size	E-5	E-40	E-100	E-1500	E-2500
5 g	FG01015	FG01025	FG01035		
20 g	FG01010	FG01020	FG01030	FG01050	FG01060
1 lb	FG01013	FG01023	FG01033	FG01053	FG01063
20 kg	FG01016				FG01064

In case of emergency, call Pacer Technology at 800-538-3091 (outside CA only), or 909-987-0550.

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