

Pacer Technology's RX Series Range Extended cyanoacrylate adhesives are a family of non-surface sensitive adhesives for porous, acidic, contaminated, or hard-to-bond substrates, such as certain plastics and plated surfaces. Viscosities range from water-thin to a non-running gel to fit a variety of application requirements.

PROPERTIES:

| Liquid State | RX-5 | RX-50 | RX-100 | RX-500 | RX-700 | RX-GEL |
|---|-------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Base Chemical | Ethyl Hybrid Cyanoacrylate | | | | | |
| Color | Translucent Liquid | | | | | |
| Viscosity, cP | 2-10 | 30-70 | 80-120 | 350-550 | 600-800 | 20,000 -50,000 |
| Flashpoint, F (C) | 185 (85) | 185 (85) | 185 (85) | 185 (85) | 185 (85) | 185 (85) |
| Vapor Pressure (mmHg @ 70C) | 8 | 8 | 8 | 8 | 8 | 8 |
| Specific Gravity (@25F) | 1.04 | 1.06 | 1.07 | 1.08 | 1.08 | 1.12 |
| Soluble in: | Acetone, MEK | | | | | |
| Cured State | RX-5 | RX-50 | RX-100 | RX-500 | RX-700 | RX-GEL |
| Temperature Range | -65F to +180 F (-54C to 82C) | | | | | |
| Hardness, Rockwell (M) | 75 | 74 | 74 | 74 | 74 | 74 |
| Outgassing (@ 10 ⁻⁶ mmHg, 72F) | 0 | 0 | 0 | 0 | 0 | 0 |
| Typical Gap, inches | 0.002 | 0.004 | 0.005 | 0.008 | 0.010 | 0.020 |
| Softening Point, F (C) | 311 (155) | 306 (152) | 306 (152) | 306 (152) | 306 (152) | 303 (151) |
| Melting Point, F (C) | 365 (185) | 365 (185) | 365 (185) | 365 (185) | 365 (185) | 365 (187) |
| Glass Transition, F (C) | 347 (175) | 347 (175) | 347 (175) | 347 (175) | 347 (175) | 347 (175) |
| Soluble in: | X-9 Debonder, Acetone, Nitropropane | | | | | |
| Shear Strength, psi | ASTM D-1002 | | | | | |
| Steel | 2300 (±10%) | 2300 (±10%) | 2300 (±10%) | 2300 (±10%) | 2300 (±10%) | 2400 (±10%) |
| Aluminum | 1600 (±10%) | 1600 (±10%) | 1600 (±10%) | 1600 (±10%) | 1600 (±10%) | 1600 (±10%) |
| Copper | 1400 (±10%) | 1400 (±10%) | 1400 (±10%) | 1400 (±10%) | 1400 (±10%) | 1400 (±10%) |
| ABS | SF* | SF* | SF* | SF* | SF* | SF* |
| Rigid PVC | SF* | SF* | SF* | SF* | SF* | SF* |

| | | | | | | |
|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Nylon | SF* | SF* | SF* | SF* | SF* | SF* |
| Polycarbonate | SF* | SF* | SF* | SF* | SF* | SF* |
| SBR | SF* | SF* | SF* | SF* | SF* | SF* |
| EPDM | SF* | SF* | SF* | SF* | SF* | SF* |
| Tensile Strength, psi | | | | | | |
| Steel (ASTM D-2095) | 4000 (±10%) | 4000 (±10%) | 4000 (±10%) | 4000 (±10%) | 4000 (±10%) | 4000 (±10%) |
| Dielectric Constant (1MC) | 3.98 | 3.98 | 3.98 | 3.98 | 3.98 | 3.98 |
| Volume Resistivity (ohm-cm) | 8.4x10 ¹² | 8.4x10 ¹² | 8.4x10 ¹² | 8.4x10 ¹² | 8.4x10 ¹² | 8.4x10 ¹² |

*Substrate failure

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 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.

STORAGE AND SHELF LIFE:

Refrigerate unopened cyanoacrylate for optimal results. Once opened, store in a cool, dry location away from heat sources. Stored under these conditions, a one-year shelf life can be expected.

APPROVALS:

Pacer Technology will certify compliance for the following:

| Specification Compliance | RX-5 | RX-50 | RX-100 | RX-500 | RX-700 | RX-GEL |
|----------------------------|------|-------|--------|--------|--------|--------|
| 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 | II/5 |

SAFETY AND HANDLING PRECAUTIONS:

Cyanoacrylate adhesives bond skin in seconds. In case of skin contact, flush with water. If skin becomes bonded, peel (do **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. Avoid contact with clothing as it can cause burns. For more information, refer to the Safety Data Sheet available upon request or from our website at: <http://www.supergluecorp.com>

In case of emergency, call CHEMTREC at (800) 424-9300 or call Pacer Technology (800) 637-9803 (outside CA only) or (909) 987-0550.

Part Numbers:

REV 7 - KSR 2017

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