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CherryLOCK Blind Rivet CR2538-6-05

Technical Specification Sheet

Compliant with NAS1738, NAS1740, MIL-R-7885

The CR2538-6-05 is a high-strength structural blind rivet featuring a 100° flush countersunk head and bulbed tail for enhanced performance under vibration and fatigue. Suitable for aerospace and demanding industrial applications with single-side access.

Basic Parameters

- Shank Diameter: 3/16 in (0.1875")
- Grip Range: 0.250 – 0.312 in (6.35 – 7.92 mm)
- Total Length: 0.625 in (± 0.030 ")
- Head Diameter: 0.216 in ($+0.004$ / -0.002 ")
- Head Height: 0.036 in ± 0.004 "
- Head Style: 100° flush countersunk, ring-locking
- Body: Aluminum alloy 7050-T73
- Mandrel: A286 Stainless Steel
- Standards: NAS1738, NAS1740, MIL-R-7885.

Additional Technical Data

- Shear Strength: up to 10,800 PSI
- Tensile Strength: up to 7,000 PSI
- Operating Temp Range: -54°C to $+120^{\circ}\text{C}$
- Recommended Hole Diameter: 0.192 – 0.196 in
- Countersink Depth: ≥ 0.040 in
- Head Seat Radius: 0.110 – 0.125 in
- Max Mandrel Wear (Install): ≤ 0.002 in
- Install Time (at 90 psi): ≤ 1.5 sec
- Anodizing Standard: MIL-A-8625, Type II, Class 1.

Installation Notes

- Use only calibrated tools: Cherry G784, G689, G746A + H681-6 nosepiece
- Minimum air pressure: 85 psi
- Do not apply lubricant
- Confirm audible click to verify lock.
- Avoid mechanical impact post-installation
- Mandrel tail must be flush: ± 0.005 in tolerance
- For composites, regulate pressure to prevent delamination.

Material Stack Guidelines

Suitable thickness: 0.250 – 0.312 in

For thinner stack: use CR2538-6-04

For thicker stack: use CR2538-6-06.

Part Number Breakdown

- CR – CherryLOCK series (blind rivet, ring-lock)
- 25 – Bulbed tail
- 38 – 100° flush countersunk head
- 6 – Shank: 3/16 in
- 05 – Grip range: 0.250–0.312 in.

Identification

- May feature light blue or silver anodized finish
- Color is not a reliable identifier — confirm by part markings/documentation.

Advantages

- Complies with NAS/MIL aerospace standards
- Quick and reliable blind installation
- Excellent vibration/fatigue resistance
- Maintains integrity in out-of-round holes
- Low maintenance, high reliability.

Note: This technical information is based on the official documentation provided by Cherry Aerospace and is intended solely for reference in product selection and specification.