

# Roxy

## TOUGHENED EPOXY SYSTEMS





Royce provides a full line of toughened epoxy products known for its strength and flexibility. The following products provide high strength solutions for applications, such as structural adhesives, composites, industrial coatings, electrical potting & encapsulating, and molding compounds.

### Features & Benefits

- Excellent adhesion to most substrates.
- Excellent thermal shock and fatigue resistance.
- High peel and shear strength with retention of modulus.
- Excellent flexibility, fracture toughness and impact resistance.
- Excellent chemical resistance.

### Typical Product Properties

PROPERTY	UNIT	ER 8003	ER 8005	ER 8006	ER 708
Epoxy Type		Bisphenol-F	Bisphenol-A	Bisphenol-A	Bisphenol-A
CTBN modification	%	40	40	40	n/a
Appearance	Visual	Viscous Liquid	Viscous Liquid	Viscous Liquid	Amber Liquid
Color	Gardner	11 Max	11 Max	11 Max	5 Max
Viscosity @ 25°C	Pa.s	150 – 300	300 – 800	150 – 300	2000 – 5000 (cPs)
Epoxide Equivalent Weight (EEW)	g/eq	285 – 330	285 – 330	330 – 360	365 – 445



## Typical Formulated Coating Properties

PROPERTY	UNIT	ER 708 with CR 563	ER 708 with CR 5283
Mix Ratio with Epoxy	PHR by weight	40 – 45	60 – 70
Gel Time	Minutes	20 – 35	20 – 35
Shore D Hardness		80D – 85D	~65D
Ultimate Tensile Strength	psi	6900 – 8400	2000 – 4700
Tensile Modulus	psi	320,000 – 415,000	75,000 – 270,000
Ultimate Elongation	%	2.5 – 3.5	25 – 35



**Beyond product quality, a commitment  
to superior service and innovation.**

**DISCLAIMER**

The properties listed above are typical values and should not be taken as products or sales specifications. All recommendations for use of products, whether given in writing, verbally, or to be implied from the results of tests carried out are based on the current state of knowledge. Although the information contained in this sheet is accurate to the best of our knowledge, no liability can be accepted in respect of such information and no warranty or conditions are intended in respect of the product described as the conditions of applications are beyond our control. We do not guarantee performance in the end application. The responsibility of testing the product lies with the user.

## Creating your competitive advantage, in your market, for your customers.



### High Quality Standards with Rigorous Product Testing

Royce has high standards and does not sacrifice quality. We have long-term relationships with our customers and key manufacturing partners. Royce certifies every batch and shipment to ensure consistent quality and performance.



### Industry Expertise and Custom Solutions

Royce is a solution provider that employs a team of experienced industry specialists, with expertise in chemistry, product manufacturing, formulations and applications for our customers. This allows Royce to provide technical service and customize products for their specific needs.



### Capability and Reliability

Royce has the financial strength to support our customers' needs. Whether customers need just-in-time delivery, or require seasonal adjustments of inventory, Royce is always ready to provide support. Royce has warehouses throughout the US to provide delivery with short lead times for customers.



### Superior Customer Service and Logistics

Royce's customer service team is always rated as exceptional. If you need an answer, you can count on someone to respond to you quickly. Royce's logistics team helps customers manage delivery needs at optimized costs.



### Manufacturing and Laboratory

Royce has manufacturing and custom blending in the US. Royce offers a full-service lab for product development and customization to provide consumers with the solutions they need for their specific applications. Royce complements their US capabilities with products made specifically to our specifications with long-term manufacturing partners. In some cases, Royce has transferred the technology to our partners.

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