

# Product Bulletin

# CASS POLYMERS

**ADTECH**  
Plastic Systems  
SC-9001 Registered



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EC-428  
EPOXY MASS CAST-ROOM TEMP  
ALUMINUM FILLED-MODERATE  
USE TO 3/4"  
EC-428-1  
ALUMINUM FILLED, SLOW  
USE TO 2-4" 0302

## DESCRIPTION

EC-428 MASS CAST SYSTEMS are less than 50% aluminum filled. The material will not settle or pack during shipment or in storage. These systems feature easy mixing, with low viscosity and excellent air release. Minute details will be reproduced. Very low exotherm during cure allows for dimensional stability with minimal shrinkage. The system demonstrates good machinability, high physical strength and durability. Cast EC-428 up to 3/4" in thickness. EC-428 may be cast to a thickness of 2-4" in conductive molds, and in larger, thicker masses with the addition of bulk fillers such as aluminum granules. A non-hazardous, safety hardener system is used with EC-428 and EC-428-1.

## USES

- Surface & Mass Cast Applications
- Duplicating Models
- Stretch Form Tools
- Holding Fixtures
- Many Other Applications.....
- Foundry Patterns & Core Boxes
- Prototype Parts
- Kirksite Facings
- Hammer Forms

## HANDLING CHARACTERISTICS @ 25°C/77°F

	<u>EC-428</u>	<u>EC-428-1</u>
Mix Ratio (parts by weight)..... ..	100R/8.5H.....	100R/20H
(parts by volume)..... ..	7.2R/1H.....	2.77R/1H
Density: Resin..... ..	13.74 lbs/gal .....	13.76 lbs/gal
Hardener..... ..	..8.4 lbs/gal.....	7.9 lbs/gal
Mixed..... ..	13.0 lbs/gal. ....	12.06 lbs/gal
..... ..	0.056 lbs/cu in.....	0.052 lbs/cu in
Specific Gravity (mixed)..... ..	1.56 grams/cc.....	1.44 grams/cc
Mixed Viscosity..... ..	.4500 cps.....	5000-6000 cps
Work Life (434/432 gram mass)..... ..	.70 minutes....	140-180 minutes
Demold Time..... ..	.16-24 hours. ....	16-24 hours
Complete Cure..... ..	.5-7 days.....	5-7 days
Color..... .. Resin: Gray .....	.....Hardener: Amber .....	.....Gray.....Gray
Storage Life (@ 25°C/77°F containers tightly closed)..... ..	.....1 year.....	.....1 year

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**PHYSICAL PROPERTIES**

<u>CAST BAR</u>	<u>EC-428</u>	<u>EC-428-1</u>
Ultimate Tensile Strength.....	4950 psi.....	5600 psi
Tensile Modulus.....	1.43 x 10 <sup>6</sup> psi.....	0.71 x 10 <sup>6</sup> psi
Ultimate Flexural Strength.....	8350 psi.....	7480 psi
Flexural Modulus.....	0.94 x 10 <sup>6</sup> psi.....	0.54 x 10 <sup>6</sup> psi
Ultimate Compressive Strength.....	14,660 psi.....	11,480 psi
Impact Strength (Notched Izod).....	4.93 in lbs.....	4.94 in lbs
Hardness.....	88 Shore D.....	87-90 Shore D
Tensile Elongation.....	...0.42%.....	0.863%