

Product Bulletin

CASS POLYMERS

ADTECH
Plastic Systems
SC-9001 Registered



Phone: 800 344 7776
Fax: 248 588 5909
815 West Shepherd Street
Charlotte, MI 48813-0523
plastic@casspolymers.com
www.casspolymers.com

CER 112
CER 112-1
CER 112-2
CER 112-4
CER 112-5

EPOXY
LAMINATING
SYSTEMS

0302

DESCRIPTION

The CER-112 Series features clear, low viscosity, two-part epoxy systems which exhibit excellent wet-out and air release. The CER-112 Series produces material of exceptionally high strength, with a range of physical properties and handling characteristics to address a variety of applications with fabrics such as fiberglass, Kevlar and graphite. The CER-112-4 system features a higher elongation percentage for enhanced impact resistance.

SEE BACK FOR DETAILS

SELLER CANNOT ANTICIPATE ALL CONDITIONS UNDER WHICH SELLER'S PRODUCTS, OR THE PRODUCTS OF OTHER MANUFACTURERS IN COMBINATION WITH SELLER'S PRODUCTS, MAY BE USED. SELLER ACCEPTS NO RESPONSIBILITY FOR RESULTS OBTAINED BY THE APPLICATIONS OF SELLER'S PRODUCTS OR THE SAFETY AND SUITABILITY OF SELLER'S PRODUCTS, EITHER ALONE OR IN COMBINATION WITH OTHER PRODUCTS. USERS ARE ADVISED TO MAKE THEIR OWN TEST TO DETERMINE THE SAFETY AND SUITABILITY OF EACH SUCH PRODUCT OR PRODUCT COMBINATION FOR THEIR OWN PURPOSES. UNLESS OTHERWISE AGREED IN WRITING, SELLER DELIVERS THE PRODUCTS WITHOUT WARRANTY OF ANY NATURE, STATED OR IMPLIED, AND BUYERS AND USERS ASSUME ALL RESPONSIBILITY AND LIABILITY FOR LOSS OR DAMAGE ARISING FROM THE HANDLING AND USE OF SAID PRODUCTS, WHETHER USED ALONE OR IN COMBINATION WITH OTHER PRODUCTS. PURCHASER WAIVES ANY CLAIM AGAINST SELLER FOR DIRECT, INDIRECT, CONSEQUENTIAL OR EXEMPLARY DAMAGES AGAINST SELLER, INCLUDING WITHOUT LIMITATION, DAMAGE WHICH MAY OCCUR AS A RESULT OF PURCHASER'S USE OR MISUSE OF THE PRODUCT OR THE PRODUCT'S FAILURE TO CONFORM TO ANY PARTICULAR SPECIFICATIONS.

HANDLING CHARACTERISTICS @ 25°C/77°F	LAMINATING SYSTEM				
	CER-112	CER-112-1	CER 112-2	CER 112-4	CER 112-5
MIX RATIO:PARTS BY WEIGHT PARTS BY VOLUME DENSITY: MIXED	100R/22H 4.0 R/1H 9.2 lbs/gal 0.039lbs/cu in	100R/18H 5.3 R/1H 9.2 lbs/gal 0.039 lbs/cu in	100R/40H 2.2 R/1H 9.2 lbs/gal 0.038 lbs/cu in	100R/18.5 H 4.7 R/1H 9.1 lbs/gal 0.039 lbs/cu in	100R/40H 2.101R/1H 9.40 lbs/gal 0.0388 lbs/cu in
SPECIFIC GRAVITY	1.07 gms/cc	1.09 gms/cc	1.05 gms/cc	1.09 gms/cc	1.07 gms/cc
MIXED VISCOSITY	250-400 cps	600-650 cps	1150 cps	475 cps	540 cps
WORK LIFE GRAMS MASS	35-50 min. 330 g	15-20 min. 236 g	1 hour,20 min. 280 g	33 min 237 g	4 hours 203 g
DEMOLD TIME	24 hours	16 hours	24 hours	24 hours	36 hours
COMPLETE CURE	48 hours	24 hours	48 hours	48 hours	7 days
WATER ABSORPTION	0.236 %	0.0793 %	0.204 %	0.30%	0.26%
COLOR	Clear	Clear	Clear	Clear	Amber
SHELF LIFE (STORAGE @ AMBIENT TEMPERATURE)	One Year	One Year	One Year	One Year	One Year
PHYSICAL PROPERTIES	6 LAYER, 10 OUNCE GLASS FABRIC LAMINATE:				
ULTIMATE TENSILE STRENGTH TENSILE MODULUS	37,660 psi 2.41 x 10 ⁶ psi	34,800 psi 2.21 x 10 ⁶ psi	34,390 psi 2.03 x 10 ⁶ psi	35,000 psi 2.98 x 10 ⁶ psi	32,930 psi 1.68 x 10 ⁶ psi
ULTIMATE FLEXURAL STRENGTH FLEXURAL MODULUS	55,270 psi 5.54 x 10 ⁶ psi	44,060 psi 5.65 x 10 ⁶ psi	33,580 psi 1.38 x 10 ⁶ psi	34,520 psi 1.41 x 10 ⁶ psi	27,930 psi 1.56 x 10 ⁶ psi
	CAST BAR				
ULTIMATE COMPRESSIVE STRENGTH	10,130 psi	11,670 psi	8,828 psi	4,278 psi	6,842 psi
IMPACT STRENGTH-NOTCHED IZOD	4.84 in lbs	9.21 in lbs	5.30 in lbs	13.76 in lbs	14.87 in lbs
HEAT DEFLECTION TEMPERATURE	122.96°F	135.14°F	134.54°F	125.60°F	114.44°F
HARDNESS	80 Shore D	85 Shore D	81 Shore D	75 Shore D	78 Shore D
SHRINKAGE	0.0001 in/in	0.0001 in/in	0.0002 in/in	0.0002 in/in	0.0002 in/in
COEFFICIENT OF THERMAL EXPANSION	4.16 x 10 ⁻⁵ in/in/°F	3.35 x 10 ⁻⁵ in/in/°F	4.33 x 10 ⁻⁵ in/in/°F	3.86 x 10 ⁻⁵ in/in/°F	5.25 x 10 ⁻⁵ in/in/°F
TENSILE ELONGATION	4.0 +/- 1%	2.57 %	7.8 %	11.0 %	8.513%