

Product Bulletin

CASS POLYMERS

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ES-204
EPOXY SURFACE COAT
ABRASION RESISTANT
BLACK

REV: 0302

DESCRIPTION

ES-204 ABRASION RESISTANT EPOXY SURFACE COAT is a two component, room temperature curing system commonly referred to as a Die Surface system. It exhibits excellent handling properties which produce dimensionally accurate and void free duplications. Due to its abrasion resistance, machinability is poor; however, the outstanding physical properties create a very strong, long lasting and durable surface. ES-204 can also be used as the surface coat for mass casting duplications, or as a surface casting material up to 1/2" without bulk fill. Use with ADTECH laminating systems, EL-301 or EL-302-PC.

USES

Nesting and bonding fixtures
Draw and stretch dies
Foundry patterns and core boxes

Router and trim fixtures
Hammer and stretch forms
Tracing duplications

HANDLING CHARACTERISTICS @ 25°C/77°F

Mix Ratio (parts by weight)	100:10
(parts by volume)	6.05:1
Density (Mixed) (lbs/gallon)	14
(lbs/in3)	0.059
Specific Gravity (g/cc)	1.68
Viscosity	
Resin (cps)	325,000
Hardener(cps)	300
Mixed (cps)	thixotropic
Work Life (minutes)	25
Tack Free Time (hours)	8-10
Demold Time (hours)	16-20
Color	
Resin	Black
Hardener	Amber
Mixed	Black
Shelf Life (Months - Unopened at 25°C/77°F)	12

PHYSICAL PROPERTIES

Ultimate Tensile Strength (psi) (ASTM D-638.91)	5,600
Tensile Modulus (psi) (ASTM D-638.91)	1,249,000
Tensile Elongation (psi) (ASTM D-638.91)	0.41
Ultimate Compressive Strength (psi) (ASTM D-695.91)	19,200

CONTINUED ON REVERSE

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PHYSICAL PROPERTIES (CONT.)

Compressive Modulus (psi) (ASTM D-695.91).....	137,300
Ultimate Flexural Strength (psi) (ASTM D-790.92).....	11,300
Flexural Modulus (psi) (ASTM D-790.92).....	543,400
CTE (in/in/F).....	0.0000456
Heat Deflection Temperature @ 66 PSI (°C/°F) (ASTM D-648.82).....	53/128
Heat Deflection Temperature @ 264 PSI (°C/°F) (ASTM D-648.82).....	52/125
Notched Izod Impact Strength (in-lb/ft) (ASTM D-256.93A).....	4.23
Moisture Absorption (%) (ASTM D-570.88).....	0.130
Hardness (Shore D).....	90
Shrinkage (in/in).....	0.0004