

TECHNICAL DATA SHEET

TCC-401

EPOXY MASS CASTING SYSTEM IRON FILLED, ROOM TEMPERATURE

DESCRIPTION

Epoxy Resin TCC-401 is an iron oxide filled mass casting resin designed as the back-up material for casting applications such as plastic draw dies for forming metal parts. Size of the casting is limitless and shrink and exotherm are controlled by utilizing fillers and the proper hardener. By utilizing this system, prototype and short-run production of parts can be accomplished rapidly with minimum cost.

APPLICATIONS

- Prototype parts
- Short run production parts

PHYSICAL PROPERTIES

Thickness of Cast	<u>up to 1"</u>	<u>1" to 4"</u>	<u>4" to 10+"</u>
Hardener Selection	TCC-104	TCC-104-5	TCC-105
Mix Ratio (parts by weight):			
Resin TCC-401	100 parts	100 parts	100 parts
Hardener	10 parts	10 parts	10 parts
Pot Life (500 gram mass)	30 minutes	50 minutes	1 - 2 hours
Cure Time	8 - 12 hours	12 - 24 hours	24 - 48 hours

TYPICAL PHYSICAL PROPERTIES @ 77°F (25°C)	
Density	120 lb/ft ³
Specific Gravity	1.9 g/cc
Mixed Viscosity	5,500 cps
Cured Color	Black
Peak Operating Temperature	180°F
Hardness	80 Shore D
Compressive Strength	28,500 psi (197MPa)
Compressive Modulus:	
TCC-401/105	282,000psi (1,944MPa)
TCC-401/105 with 1 part Aluminum	315,000psi (2,172MPa)
Notched Izod Impact Strength	1.9 ft lbs/in
Tensile Strength	7,000psi/48MPa
Shelf Life (in original unopened containers)	TCC-401/TCC-104, TCC-104-5, or TCC-105
	2 years

Note: Large castings can be achieved by using aggregate fillers such as aluminum cut wire, stone or metal shavings. The filler is added at a ratio of 2 to 4 parts for each 1 part of resin mix. This ratio of filler reduces shrink and exotherm allowing extremely large castings.

HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:

- Ensure good ventilation.
- Avoid skin contact.
- Wear gloves, glasses and protective clothes.

For further information, please consult the Safety Data Sheets.

STORAGE CONDITIONS

- This product has a shelf life of 24 months for the resin and hardener as indicated by the expiration date on the container when stored in original unopened containers. Before use, mix resin well by hand (paint paddle) or with mechanical mixer.

PACKAGING

Packaging information on request, please contact your local sales representative or find your local contact on www.sikaadvancedresins.us

LEGAL NOTICE

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