

TECHNICAL DATA SHEET

SC 155 NA

EPOXY MODELING PASTE MASTER MODELS – PLUGS – DIRECT TO MOLD

DESCRIPTION

Extrudable epoxy paste for models, tools, and plug production by extrusion process.

APPLICATIONS

- *Models*
- *Tools*
- *Plugs*

PROPERTIES

- *Vary good surface aspect*
- *Low density*
- *Low hardness*

PHYSICAL PROPERTIES

	Test Method	Test Result	Test Result	Test Result
Composition		Resin	Hardener	Mixed
Mix ratio by weight		100	100	100/100
Mix ratio by volume at 77° (25°C)		1	1	1/1
Aspect		Viscous paste	Viscous paste	Viscous paste
Color		Grey	White	Grey
Viscosity at 77°F (25°C) (Pa·s - .09 Hz)	IN-7.5-057	650	700	600
Density 77°F (25°C) (Lbs/gal)	ASTM D792	4.3	4.3	4.5
Specific Gravity at 77°F (25°C) (g/cm ³)	ASTM D792	.52	.52	.55

MECHANICAL and THERMAL PROPERTIES at 74°F (23°C) ⁽¹⁾			
Property	Test Method	Units	Test Result
Hardness	ASTM D2240	Shore D	51
Tensile strength	ASTM D638	psi (MPa)	1,100 (7.6)
Tensile modulus	ASTM D638	psi (MPa)	48,000 (331)
Elongation	ASTM D638	%	4.2
Flexural strength	ASTM D790	psi (MPa)	1,625 (11)
Flexural modulus	ASTM D790	psi (MPa)	66,000 (455)
Compressive strength	ASTM D695	psi (MPa)	1,360 (9.4)
Compressive modulus	ASTM D695	psi (MPa)	45,000 (310)
Coefficient of Thermal Expansion (CTE)	TMA	ppm/°F (°C)	49 (88)
Glass transition temperature Tg (TMA)	ASTM E1545	°F (°C)	140 / (60)

⁽¹⁾ The above properties were obtained under laboratory conditions using standardized specimens. Cured at 24 hr at 74°F + 16 hr at 104°F.

PROCESSING

During extrusion, the dispensing nozzle must be maintained perpendicular to the surface on which the product is applied. Ensure overlap of ribbon.

CAUTION: Exotherm mostly depends on the type of machine and on the working parameters such as:

- Room temperature.
- Insulating property of frame.
- The mixture temperature (depending on the type of mixer: static or dynamic) and the speed of mixing and output.
- Applied thickness.

EXOTHERMIC PEAK AND HARDENING TIME *				
Thickness In. (mm)	Product temperature °F (°C)	Exothermic peak (minutes)	Exothermic peak °F (°C)	Workability (hours)
.984 (25)	74 (23)	160	158 (70)	16-18

*Room temperature: 72 – 77°F (22 – 25°C); polystyrene support.

PROCESSING CONDITIONS

On vertical support, it is recommended to apply a thin coat of product with a spatula; this will help to reinforce the bonding on the support.

For ceiling application, we recommend a maximum thickness of 1.18 in. (30 mm).

An elevated temperature cure of 16 hours at 104°F (40°C) after initial room temperature cure is highly recommended to allow the paste to develop its full properties for demanding applications.

HANDLING PRECAUTIONS

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

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

For further information, please consult the Safety Data Sheets.

STORAGE CONDITIONS

Shelf life is 12 months of the manufacturing date. Expiration date indicated on the packaging.

PACKAGING

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

LEGAL NOTICE

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

CONTACT

UNITED STATES

Sika Corporation

30800 Stephenson Highway
Madison Heights, Michigan 48071 – USA
Tel.: (+1) 248 588-2270
Fax: (+1) 248 577-0810
E-mail: advanced.resins@us.sika.com
Website: www.sikaadvancedresins.us

TECHNICAL DATA SHEET
SC 155 NA
February 19, Version 01 /2021