

TECHNICAL DATA SHEET

TCC-8020A/TCC-8021B

POLYURETHANE CASTING SYSTEM PRONTO PARTS® 75 SHORE D HARDNESS

DESCRIPTION

Pronto Parts® TCC-8020 is a 75 Shore D urethane system designed to give the feel of thermoplastic plastic parts for prototype applications. Parts can also be post cured to reach a higher heat deflection temperature. Because of its low viscosity and short to medium working life this system is suited for use with automated dispensing equipment but can also be hand mixed if time allows.

APPLICATIONS

- *Prototyping applications*
- *Thermoplastic part feel and usage*
- *Tough yet semi-ridged for parts*
- *Easily pigmentable*
- *200°F heat resistance with post-cure*
- *Very low mixed viscosity*

PHYSICAL PROPERTIES

Handling Properties @ 77°F (25°C)				
	Units	TCC-8020A	TCC-8021B	Mixed System
Mix Ratio (by weight)				100A/50B
Mix Ratio (by volume)				100A/52B
Color	Visual	Lt amber	Clear	White (cured)
Specific Gravity	g/cc	1.09	1.06	1.10 (cured)
Viscosity	Cps	60	1500	150
Gel Time (150 gram mass)	Minutes			16 - 18
Peak Exotherm	°F (°C)			< 260 (112)

Typical Physical Properties @ 77°F (25°C)*			
	Test Method	Units	Test Results
Hardness		Shore D	75
Heat Defection Temperature @ 66 psi 7 day @ R.T. Cure - 6 hrs @ 140°F (60°C) Post Cure - 16 hrs @ 180°F (80°C) Post Cure -	ASTM D-648	°F (°C)	140 (60) 185 (82) 210 (99)
Flexural Strength	ASTM D-790	psi (MPa)	7,500 (52)
Flexural Modulus	ASTM D-790	psi (MPa)	237,500 (1,638)
Tensile Strength	ASTM D-638	psi (MPa)	6,000 (41)
Elongation	ASTM D-638	%	6
Linear Shrinkage 7 day @ R.T. Cure - 6 hrs @ 140°F (60°C) Post Cure - 16 hrs @ 180°F (80°C) Post Cure -		in/in	Nil <.001 <.001
Compressive Strength 7 day @ R.T. Cure - 6 hrs @ 140°F post-cure -	ASTM D-695	psi (MPa)	6,300 6,900
Compressive Modulus 7 day @ R.T. Cure - 6 hrs @ 140°F Post-cure -	ASTM D-695	psi (MPa)	180,000 (1,242) 178,000 (1,228)

*** 7 day R.T. cure unless noted**

MIXING PROCEDURE

Use an accurate gram scale to properly weigh and proportion A/B components into a straight sided metal or plastic container for mixing. Paper or wax lined mixing containers can contain moisture and contaminate material. Next, use a metal or plastic mixing spatula to gently but thoroughly blend resin and hardener together. Once the urethane appears to be well mixed, pour into a second container and continue to mix for another two to three minutes. This procedure eliminates the possibility of any unmixed material being poured into the final cast. Vacuum degass mixture before casting to produce an air free part.

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

- 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. Store closed containers at 65°F-85°F (18°C-29°). Partially used containers must be flushed with dry nitrogen and resealed. Materials are sensitive to moisture contamination.

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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TCC-8020A/TCC-8021B
February 19, Version 01 /2021

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