



POLYCOAT PRODUCTS

A Division of American Polymers Corp.

GREATER LOS ANGELES—14722 Spring Avenue - Santa Fe Springs, CA 90670
DALLAS / FT.WORTH METROPLEX—2100 Reliance Parkway - Bedford, TX 76021

Tel: (562) 802-8834
Fax: (562) 921-7363

www.Polycoat.com

PRODUCT DATA SHEET

POLYCAST Shore A Series

Product Description:

The Polycast Shore A Series Elastomers are two-component, one-hundred percent solid elastomers, suitable for many casting applications. The ability to extend the gel time on these products allow for casting of extremely large parts. The Shore A Hardness can vary from 30-90. The Polycast Shore A Series Elastomers are designed for use when superior tensile strength, elongation, and high-resilience are required. These systems have been used for manufacturing concrete stamps, tooling, automotive bushings and other applications.

Typical Properties

A Component

NCO, %: 18.8-19.2
Viscosity, mPa·s @ 25°C: 900-1300
Specific Gravity @ 25°C: 1.20
Appearance @ 25°C: Liquid

B Component

Viscosity, mPa·s @ 25°C: 800-1000
Specific Gravity @ 25°C: 1.02
Appearance @ 25°C: Liquid

Typical Physical Properties		40A	50A	60A	70A	80A
Hardness	Shore A	40-45	48-52	58-62	68-72	78-82
Resilience	%Rebound	43	47	55	50	50
Split Tear Strength	PLI	48	60	65	70	90
Die C Tear Strength	PLI	120	150	160	175	320
Tensile Strength	PSI	950	1100	1400	1700	2300
Ultimate Elongation	%	850	650	700	500	400
Shrinkage in./in.		.010-.015	.010-.015	.010-.015	.010-.015	.01-.015
Processing Parameters						
Ratio by weight A/B		25/75	26/74	28/72	33/67	40/60
Ratio by weight (per 100 parts B)		33.3/100	35/100	39/100	49/100	67/100
Material temperatures,	° F	90-110	90-110	90-110	90-110	90-110
Mold Temperature,	° F	110-140	110-140	110-140	110-140	110-140
Gel Time,	Min.	2-30	2-30	2-30	2-30	2-30



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Storage and Handling:

Containers should be kept tightly closed to prevent moisture contamination. Do not reseal if contamination is suspected. Use of a dry nitrogen blanket for partial drums is recommended. Storage temperatures for the Polycast Series should be maintained between 70° and 95°F (22° and 35°C). For best results, this product should not be allowed to freeze, although it may be re-heated in a well ventilated oven for a period of time to re-liquefy solid particles. To avoid product degradation, product temperature during re-heating should not exceed 140°F (60°C). An additional note of caution is that exposure to temperatures over 400°F (204°C) can create excessive pressure potentially causing containers to rupture. Do not breathe aerosol or vapors. Exposure to vapors of heated MDI can be dangerous. To heat product properly, use well ventilated convection ovens or other methods that distribute heat evenly. Avoid using drum heaters or other heat sources that may cause excessive local heating.

Health and Safety Information:

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling any of the products listed above. Before working with these products, it is your responsibility to read and become familiar with the available information on its hazards, proper use and handling. This is extremely important and cannot be overemphasized. Information is available in several forms, e.g. material safety data sheets and product labels. To obtain this information, contact your Polycoat Products representative.