

## POLYPROPYLENE

### 23R2A

**DESCRIPTION:** Random Copolymer

**FEATURES:** High contact clarity, blush resistant, good impact, and stress crack resistant. Resistant to radiation exposure. Product does not contain animal derived components.

**APPLICATIONS:** Blow Molded: Radiation sterilizable vials and bottles

PROPERTY	NOMINAL VALUE	SI UNIT	NOMINAL VALUE	ENGLISH UNIT	ASTM TEST METHOD
Melt Flow Rate	2.0	g/10 min.			D 1238
Density	0.90	g/cm <sup>3</sup>			D 1505
Tensile Yield Strength	27	MPa	3920	psi	D 638
Elongation at break	>700	%	>700	%	
Modulus	1015	MPa	147	kpsi	
Flexural Modulus	940	MPa	136	kpsi	D 790
Deflection Temperature @ 66 psi	90	°C	194	°F	D 648
Rockwell Hardness			90	R	D 785
Notched Izod @ 23°C	80	J	1.4	ft-lb/in	D 256

Dec-11



#### Regulatory

FDA - 21 CFR 177.1520 (c) 3.2a.

USP Class VI <88>, USP<85>, USP<661>, and ISO 10993-5

Drug Master File listed

\*This product should be stored in dry conditions at temperatures below 50°C and protected from UV and nitrous oxide exposure. Improper storage conditions can initiate premature degradation of odor, color, and physical properties.

#### Notice regarding medical applications:

This Flint Hills product meets certain requirements for use in medical applications. It is the responsibility of the medical device or pharmaceutical manufacturer to determine that this Flint Hills product is safe, lawful and technically suitable for the intended use. Flint Hills encourages its customers to review their application with a Flint Hills technical representative to ensure that this product is not used in ways for which it was not intended or tested. Flint Hills makes no warranties (express or implied), promises or guarantees concerning the suitability of this product for use in any given medical application. Not intended for use in the manufacture of any form of implanted medical or surgical device.

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The data and information represented herein refer to typical values obtained in our laboratories by the methods or apparatuses indicated, and should be so considered. Since processing variables are a major factor in product performance, this information should serve only as a guide. Since customers' testing conditions are outside our control, the reproducibility of our data in a customer's testing facility is not guaranteed. Customer should confirm results under its testing conditions. There is no implied warranty of merchantability or fitness for a particular purpose. Establishing satisfactory performance of the product for the intended application is the customer's sole responsibility. No warranty is given concerning the existence or non-existence of any patents claiming any pertinent subject matter presented herein. The Company assumes no obligation, express or implied, or liability for use of or reliance on the information and data presented. FHR disclaims all product warranties expressed or implied, including warranties of fitness for particular purpose or of merchantability. Further, this product is not intended for use in the manufacture of any form of implanted medical or surgical device.