



K0233  
North America  
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## Kraton<sup>®</sup> D1111 K Polymer

Data Document

Identifier : K233DDj09U

### Description

Kraton D1111 K is a clear, linear triblock copolymer based on styrene and isoprene with a polystyrene content of 22%. It is supplied from North America in the physical form identified below.

- Kraton D1111 KT - supplied as a dusted porous pellet
- Kraton D1111 KU - supplied as an undusted porous pellet
- Kraton D1111 KTM - supplied as a dusted powder

Kraton D1111 K is used as an ingredient in formulating adhesives, sealants and coatings. It may also find use as a modifier of bitumen or thermoplastics and in compound formulations.

### Sales Specifications

Property	Test Method	Units	Sales Specification Range	Notes
Polystyrene Content	KM 03	%m	20.0 TO 24.0	
Volatile Matter	KM 04	%m	≤ 0.7	
Total Extractables	KM 05	%m	≤ 1.0	
Antioxidant	KM 08	%m	0.08 TO 0.21	a
Ash, T	BAM 908	%w	0.25 TO 0.45	b
Vis, Sol (Toluene) 25.0%w @25C	BAM 922	cP	750 TO 1,250	

**a** Primary antioxidant is a non-staining phenolic antioxidant. The antioxidant package also contains a non-TNPP secondary antioxidant at a target level of 0.2% wt.

**b** Talc

### Typical Properties (These are typical values and may not routinely be measured on finished product)

Property	Test Method	Units	Typical Value	Notes
Melt Index 200°C, 5kg	n/a	g/10 Min.	2	
Styrene / Rubber ratio	n/a		22/78	
Specific gravity	ASTM D4025	gm/cc	0.93	
Solution Viscosity	BAM 922	cps	1000	d
300% Modulus	ASTM D-412	psi	200	c
Elongation at break	ASTM D-412	%	1200	c
Tensile strength	ASTM D-412	psi	2900	c
Diblock content	n/a		18	
Hardness	ASTM 2240	Shore A (10s)	45	b

**b** Typical values on polymer compression molded at 300F.

**c** Measured on films cast from a solution in toluene.

**d** 25%w toluene solution at 25C

### Packaging

Kraton Polymers are available in a number of different package types. For information specific to this grade, please contact your local Kraton Polymers representative.

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## End Use Requirements

If the finished article is intended for use in food contact and packaging applications, toys, or human contact areas, manufacturers of the final product should observe all relevant regulations. Some of these regulations require tests to be carried out on the final product, e.g. migration. These are the responsibility of the final product manufacturer.

Information on the food packaging clearances of individual products is available from Kraton Polymers.

## Medical, Healthcare and Cosmetic Applications and Trademark Usage

Kraton Polymers products should not be used in any devices or materials intended for implantation in the human body as defined by the U.S. Food and Drug Administration under 21 CFR 812.3(d) and 21 CFR 860.3(d).

Kraton Polymers products may, in certain circumstances, be used in the following products or applications with prior written approval for each specific product or applicaton:

- a. Cosmetics (exclusive of packaging or delivery applications).
- b. Drugs and other Pharmaceuticals (exclusive of packaging or delivery applications).

Kraton Polymers trade names, trademarks, logos or other similar identifying characteristics should not be used in the manufacture, sale, or promotion of cosmetics, drugs, and pharmaceutical products or other medical/healthcare applications or materials.

Kraton Polymers has no specific expertise in these markets and applications, and does not intend to perform testing, clinical studies or other investigations of the suitability of its products for specific applications.

Each customer or user of Kraton Polymers products is solely responsible for determining the suitability of the materials it selects for the intended purpose and acknowledges that it has not relied on any representations of Kraton Polymers regarding suitability for use in its intended cosmetics, drugs, pharmaceutical products or materials.

Please contact your Kraton Polymers Sales Representative for more details before using our products in these specific applications.

## Safety and Handling Precautions

Read the Safety Data Sheet carefully and thoroughly before beginning any work. Additional information relating to the health, safety, storage, handling and processing of Kraton Polymers products can be found in "Health and Safety Aspects of Kraton D and Kraton G Polymers" (Document K0155), available from your local Sales Representative or the company website. Kraton Polymers also recommends that customers or users consult other sources of safety information, for example, the current edition of the "Code of Practice on the Toxicity and Safe Handling of Rubber Chemicals," British Rubber Manufacturers Association Limited.

Kraton Polymers products and compounds can accumulate electrostatic charges when rubbed, chafed or abraded. Processing and storage equipment for use with Kraton Polymers products should provide a means of dissipating any charges that may develop.

When processing Kraton Polymers products, maintain a fire watch if the material reaches 225°C (437°F) for Kraton IR and Kraton D (polymers and compounds), and 280°C (536°F) for Kraton G (polymers and compounds). The temperatures listed above are indicated only for safety reasons (risk of fire and product degradation) and are not necessarily recommended for processing. Degradation of the polymer (polymer breakdown) will start at lower temperatures depending on the specific processing conditions. Therefore, operating below these temperatures does not guarantee the absence of product degradation.

Kraton Polymers products (the neat resin or the base product) are high molecular weight polymers which are non-toxic and biologically inactive.

## Warranty

The information contained in this publication is, to the best of Kraton Polymers' knowledge, true and accurate, but any recommendations or suggestions that may be made are without guarantee, since the conditions of use and storage are beyond Kraton Polymers' control. The customer understands that it shall make its own assessment to determine the suitability of a Kraton Polymers product for a particular purpose. Further, nothing contained herein shall be construed as a recommendation to use any Kraton Polymers product in conflict with existing patents. All products purchased from or supplied by Kraton Polymers are subject to terms and conditions set out in the applicable contract, order acknowledgement and/or bill of lading. Kraton Polymers warrants only that its products will meet those specifications designated therein.

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