



K0134
North America
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KRATON® D2104 Compound

Data Document

Description

KRATON® D2104 is an easy processing, general purpose 35 Shore A hardness material designed for a wide variety of applications. It is supplied from North America in the physical forms identified below:

- D2104-1002 supplied as a translucent dense pellet.

Sales Specifications

<u>Property</u>	<u>Test Method</u>	<u>Units</u>	<u>Sales Specification Range</u>
Hardness ^a	BAM 1003	Shore A	30 – 40
Specific Gravity	BAM 1014	gm/cc	0.90 – 0.94
Melt Flow, 200°C, 5 kg	BAM 903	gm/10 min.	12 – 22

^aValue on product extruded at 175°C

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

<u>Property</u>	<u>Units</u>	<u>Typical Value</u>
Tensile Strength ^a	psi	
Machine Direction		1,500
Transverse Direction		1,050 ^b
100% Modulus ^a	psi	
Machine Direction		250
Transverse Direction		70
300% Modulus ^a	psi	
Machine Direction		370
Transverse Direction		110
Elongation ^a	%	
Machine Direction		1,210
Transverse Direction		1,260 ^b

^aInjection molded sample tested at 10 in/min with Die D as per ASTM D412
^bSample did not break at maximum travel

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.

Processing

KRATON D2104 can be processed by injection molding, extrusion, thermoforming, and other thermoplastic fabricating techniques.

Typical starting conditions for a reciprocating screw injection molding machine are as follows:

Barrel temperatures, °F	
Rear	340 - 360
Front	370 - 390
Nozzle	350 - 380
Mold temperature, °F	50 - 100
Injection pressure, psig	500 – 700
Back pressure, psi	40 - 60
Injection speed	Medium to Fast

These values are intended only as guidelines, and the optimum conditions will vary from machine to machine.

Normal mold shrinkage for KRATON D2104 is about 0.025 – 0.027 in/in in the direction of flow.

Since KRATON D2104 conducts heat well compared to polyolefins, molded parts cool quickly and relatively short cycle times are obtained. Scrap is 100% recyclable.

Polystyrene, low density polyethylene (LDPE), or poly (ethylene-vinyl acetate) color concentrates can be used to color KRATON D2104.

End Use Requirements

If the finished article or product is intended for use in contact with food or in pharmaceutical applications, toys, and other human contact areas, the relevant regulations should be observed. Detailed information is available from the supplier.

For food packaging, manufacturers of the final product should ensure that all ingredients used comply with the regulations. It should be noted that 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.

Restriction on Medical/Healthcare Applications

DO NOT USE KRATON® POLYMERS PRODUCTS IN ANY DEVICES OR MATERIALS INTENDED FOR TEMPORARY OR PERMANENT IMPLANTATION IN THE HUMAN BODY. THE KRATON COMPANIES ALSO RESTRICT THE USE OF ITS PRODUCTS IN OTHER MEDICAL/HEALTHCARE APPLICATIONS.

Please contact your KRATON Polymers Sales Representative for more details.

THE KRATON COMPANIES HAVE NO SPECIFIC EXPERTISE IN THE MEDICAL/HEALTHCARE MARKET OR APPLICATIONS and do not intend to perform testing, clinical studies or other investigations of the suitability of its products for specific medical/healthcare applications. KRATON polymer products are generally manufactured for use in a variety of commercial applications.

DO NOT USE THE TRADENAMES, TRADEMARKS, LOGOS OR OTHER SIMILAR IDENTIFYING CHARACTERISTICS OF THE KRATON COMPANIES IN THE MANUFACTURE, SALE OR PROMOTION OF MEDICAL DEVICES OR MATERIALS.

THE KRATON COMPANIES MAKE NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE (INCLUDING MEDICAL APPLICATIONS) FOR ITS PRODUCTS.

Each customer or user of KRATON polymer products is solely responsible for determining the suitability of the materials they select for the intended purpose. With regards to medical/healthcare applications, each customer or user must conduct their own studies, registrations, and other related activities to establish the safety and efficacy of their products.

Safety and Handling Precautions

Read the Material Safety Data Sheet for KRATON polymer products carefully and thoroughly before beginning any work with this product. Additional information relating to Health, Safety, Storage, Handling and Processing can be found in the KRATON Polymers HSE Fact Sheet (ref. K0155), available from your local KRATON Polymers representative. It is also recommended to consult other sources of safety information, for example the current edition of Toxicity and Safe Handling of Rubber Chemicals-Code of Practice, British Manufacturers Association Limited (BRMA), London, EC2A 3JE, UK Tel: +44 (0)20 7457 5040.

KRATON polymers and compounds can accumulate electrostatic charges when rubbed, chafed or abraded. Equipment should provide a means of dissipating any charges that may develop. Processing of KRATON polymers and compounds in high shear equipment can cause the temperature to rise. Do not allow the temperature to exceed 225-230°C (437-446°F) for KRATON D polymers and compounds and 280-285°C (536-545°F) for KRATON G polymers and compounds. Maintain a fire watch if these temperatures are reached. KRATON polymer products (the neat resin or the base product) are high molecular weight polymers, which by all accounts are non-toxic and biologically inactive.

Warranty

The information contained in this publication is, to the best of our knowledge, true and accurate, but any recommendations or suggestions, which may be made, are without guarantee, since the conditions of use are beyond our control. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or its use.

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KRATON D2104 Compound
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