K0004
Europe/Africa
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Kraton D-1102 Polymer

Data Document

Description

Kraton D-1102 Polymer is a clear linear block copolymer based on styrene and butadiene, with bound styrene of 29.5% mass. It is supplied from Europe in three physical forms, identified as follows in the grade nomenclature:

- D-1102CS supplied as porous pellets dusted with an amorphous silica
- D-1102CU supplied as undusted porous pellets
- D-1102CM supplied as powder dusted with an amorphous silica

Kraton D-1102 Polymer is used in formulating adhesives, sealants and coatings and as a modifier of polymers and bitumen. It is also used in compounds for technical and footwear applications.

Product properties

Property	Physical Form	Test Method	Units	Typical Value	Sales Specification (where applicable)
Bound styrene	All	KM[d]03	%mass	29.5	28.5 - 30.5
Volatile matter	All	KM[d]04	%mass	0.3	0.3 max.
Ash	S U M	ISO 247-B	%mass	0.3 0.1 4.0	0.4 max. 0.2 max. 2.5 - 5.0
Total extractables	All	KM[d]05	%mass	1.0	1.0 max.
Solution viscosity[a]	All	KM[d]06	Pa.s	1.2	0.9 - 1.5
Antioxidant content	All	KM[d]08	%mass	≥0.14	0.14 min.
Melt flow rate 200°C/5kg	All	ISO 1133	g/10 min	6	-
Specific gravity	All	ISO 2781		0.94	-
Bulk density	All	ASTM D1895 Method B	Mg/m^3	0.4	- -
Hardness[b] Shore A, 30s	All	ISO 868		70	-
Tensile strength[c]	All	ISO 37	MPa	33	-
Modulus 300%[c]	All	ISO 37	MPa	2.9	-
Elongation at break[c]	All	ISO 37	%	880	-

(a) Measured on 25% mass solution in toluene at 25°C using a Brookfield viscometer, LTF or LTV model
(b) Measured on compression moulded slabs
(c) Measured on films cast from a solution in toluene
(d) Kraton Polymer Test Method: Copies can be requested from your local Kraton Polymers representative

Packaging

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

End Use Requirements

If the finished article 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 POLYMERS BUSINESS ALSO RESTRICTS THE USE OF ITS PRODUCTS IN OTHER MEDICAL/HEALTHCARE APPLICATIONS.

Please contact your Kraton Polymers Sales Representative for more details.

THE KRATON POLYMERS BUSINESS HAS NO SPECIFIC EXPERTISE IN THE MEDICAL/HEALTHCARE MARKET OR APPLICATIONS and does not intend to perform testing, clinical studies or other investigations of the suitability of its products for specific medical/healthcare applications. KRATON Polymers 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 POLYMERS BUSINESS IN THE MANUFACTURE, SALE OR PROMOTION OF MEDICAL DEVICES OR MATERIALS.

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Each customer or user of Kraton Polymers 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 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 4th Edition 2000, British Rubber 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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Visit us at www.Kraton.com

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