# **DuPont Packaging & Industrial Polymers**





DuPont™ Entira™ AS MK 400

# Entira™ AS resins Product Data Sheet

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Product Description Entira™ AS MK400 is an extremely hygroscopic ionomer resin that is supplied as

free-flowing pellets.

## Restrictions

Material Status

Commercial: Active

## **Typical Characteristics**

Uses • Industrial Applications

Packaging

Features Entira™ AS MK400 is used to lower the static decay time and surface resistivity of

polyolefins and other polymers.

Characteristics / Benefits Entira™ AS MK400 can be precompounded or dry blended into polymers for

extrusion, molding, or various other processing methods

Applications Antistatic agent for use in films, moldings, and extruded forms.

# **Typical Properties**

Physical	Nominal Values	Test Meth	Test Method (s)		
Density ()	0.97 g/cm <sup>3</sup>	ASTM D792	ISO 1183		
Melt Flow Rate (190°C/2.16kg)	1.0 g/10 min	ASTM D1238	ISO 1133		
Thermal	Nominal Values	Test Meth	Test Method (s)		
Melting Point (DSC)	91°C (196°F)	ASTM D3418	ISO 3146		
Freezing Point (DSC)	61°C (142°F)	ASTM D3418			
Vicat Softening Point ()	59°C (138°F)	ASTM D1525	ISO 306		

# **Processing Information**

### Genera

Maximum Processing Temperature 250°C (482°F)

General Processing Information

Entira™ AS MK 400 is a very hygroscopic material. To minimize exposure to moisture, any remaining material should be hermetically sealed in a barrier package immediately after use. The bag have as much air removed as possible prior to sealing. A vacuum to pull out the air can be used to assist this process. In order to reuse remaining material that has been hermetically sealed, the material should be dried under vacuum with a nitrogen flow at 50−60°C for several hours

Entira<sup>™</sup> AS MK400 is available in pellet form for use in conventional equipment for processing polyolefins. Entira<sup>™</sup> AS MK400 can be fed together with base polymers and other additives in the hopper during processing. Typical addition levels range

from 10 - 30%.

### **FDA Status Information**

Entira™ AS MK400 resin complies with the U.S. Food and Drug Administration Regulation 21 CFR 177.1330(a) -- Ionomeric resins, subject to the limitations and requirements therein. This Regulation describes polymers that may be in contact with food, subject to the finished food contact article meeting the extractive limitations under the intended conditions of use, as shown in paragraph (c) of the Regulation.

#### Regulatory Information

For information on compliance outside the USA please contact your local DuPont representative.

#### Safety & Handling

Entira™ AS MK400 as supplied by DuPont is not considered a hazardous material. As with any hot material, care should be taken to protect the hands and other exposed parts of the body when handling molten polymer. At recommended processing temperatures, small amounts of fumes may evolve from the resins. When resins are overheated, more extensive decomposition may occur. Adequate ventilation should be provided to remove the fumes from the work area. Disposal of scrap presents no special problems and can be by landfill or incineration in a properly operated incinerator. Disposal should comply with local, state, and federal regulations. Resin pellets can be a slipping hazard. Loose pellets should be swept up promptly to prevent falls.

For more detailed information on the safe handling and disposal of DuPont resins a Product Safety Bulletin and OSHA Material Safety Data Sheet can be obtained from the DuPont Packaging Products sales office serving you.

# Read and Understand the Material Safety Data Sheet (MSDS) before using this product

# **Regional Centres**

DuPont operates in more than 70 countries. For help finding a local representative, please contact one of the following regional customer contact centers:

#### **Americas**

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This data sheet is effective as of 01/11/2010 12:43PM and supersedes all previous versions.