DuPont™ Entira™ AS SD100

Ionomer

DuPont Packaging & Industrial Polymers

Message:

DuPont™ Entira™ AS SD100 is an extremely hygroscopic ionomer resin that is supplied as free-flowing pellets.
Uses:
Industrial Applications
Packaging
Features
Entira™ AS SD100 is used to lower the static decay time and surface resistivity of LDPE, LLDPE and other polymers.
Characteristics / Benefits:
Entira™ AS SD100 can be precompounded or dry blended into polymers for extrusion, molding, or various other processing methods
Applications:
Antistatic agent for polyethylene (LDPE, LLDPE and EVA) and other polymers, in films, moldings and extruded forms

General Information	
Additive	Antistatic property
Uses	Packaging Industrial application Mixing Additive
Agency Ratings	FDA 21 CFR 177.1330(a)
Forms	Particle
Processing Method	Extrusion Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.985	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	5.0	g/10 min	ASTM D1238, ISO 1133
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	62.8	°C	ASTM D1525, ISO 306
Melting Temperature (DSC)	92.2	°C	ASTM D3418, ISO 3146
Freezing Point - (DSC)	64	°C	ASTM D3418
Processing Temperature - Maximum	180	°C	
Additional Information	**Nominal Value**	**Unit**	

General Processing Information:
Entira™ AS SD100 is a hygroscopic material. To minimize exposure to moisture, any remaining material should be hermetically sealed in a barrier package immediately after use.
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 prior to use.
Entira™ AS SD100 is available in pellet form for use in conventional equipment for processing polyolefins. Entira™ AS SD100 can be fed together with base polymers and other additives in the hopper during processing. Typical addition levels range from 10-30%.
Materials of construction used in the processing of this resin should be corrosion resistant. Stainless steels of the types 316, 15-5PH, and 17-4PH are excellent, as is quality chrome or nickel plating, and in particular duplex chrome plating. Type 410 stainless steel is satisfactory, but needs to be tempered at a minimum temperature of 600°C (1112°F) to avoid hydrogen-assisted stress corrosion cracking. Alloy steels such as 4140 are borderline in performance. Carbon steels are not satisfactory. While stainless steels can provide adequate corrosion protection, in some cases severe purging difficulties have been encountered. Nickel plating has been satisfactory, but experiments have shown that chrome surfaces have the least adhesion to acid based polymers. In recent years, the quality of chrome plating has been deteriorating due to environmental pressures, and the corrosion protection has not always been adequate. Chrome over top of stainless steel seems to provide the best combination for corrosion protection and ease of purging.
After processing Entira™ AS, purge the material out using a polyethylene resin, preferably with a lower melt flow rate than the Entira™ AS resin in use. The "Disco Purge Method" is suggested as the preferred purging method, as this method usually results in a more effective purging process. Information on the Disco Purge Method can be obtained via your DuPont Sales Representative.
Never shut down the extrusion system with Entira™ AS in the extruder and die. Properly purge out the Entira™ AS with a polyethylene, and shut down the line with polyethylene or polypropylene in the system.

Recommended distributors for this material

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