Himilan® SP1500

Purge compound resin

For Extrusion Coating

Description

Himilan® SP1500 is a purge compound resin designed to use after processing of Ionomer and/or acid copolymer in conventional extrusion and co-extrusion coating equipment.

Features/Benefits

- Excellent purge efficiency to purge out Ionomer and/or acid copolymer, especially at the dead space in adapter and/or die
- Easily switched from SP1500 to PE
- Shorten purge time compared to PE purge
- Much less fume and odor compared to conventional purge compounds

Table 1
Properties of Himilan® SP1500

Resin Property	Typical Value	Test Method
Melt Flow Index, dg/min	0.8	ASTM D1238 Cond. 190°C/2.16 kg
Density, g/cc	1.051	ASTM D792
Vicat Soft Point,	87	ASTM D1525

Processing Information

A typical procedure for use of *Himilan*® SP1500 is shown in Figure 1. Actual purge procedure will usually be determined by either the specific equipment or the type of Ionomer and/or acid copolymer.

Figure 1. Typical procedure (Ionomer/Acid copolymer to LDPE) for 90mmΦ Extruder

Resin	Quantity	Temp. profile	Notes
Ionomer/Acid copolymer <Production>		C1 : 180 C2 : 260 C3→D : 290-300	Advisable; - Screw Cooling - Cooling at bottom of Hopper
SP1500 <Purge start>	25kg	C1 : 200 C2 : 280 C3→D : 320	1.Temperature profile will be changed when SP1500 is put into Extruder 2.Move deckle outside and remove rod 3.Raise screw speed so far as maximum motor load and resin pressure 4.When SP1500 comes out across the die, reduce screw speed minimum, like 10rpm 5.Raise screw speed again after temperature is reached at the designed profile Pay attention to motor load and resin pressure
LDPE (MI=3-4g/10min)	50kg	C1 : 200 C2 : 280 C3→D : 320	1.Never leave SP1500 in hopper 2.LDPE will run after melt web is completely clear 3.Often move deckle in and out However, close to the end of purge, move deckle out and fix it 4.Change temp. profile suitable for next production after purge is completed
LDPE (or other resins) <Next production>		Production Condition	

In order to improve purge efficiency;

- **Increase screw speed as much as possible**
- **Higher temperature is desirable**
- **Occasionally change screw speed up and down**
- **Often move deckle in and out, however, close to the end of purge, move deckle out and fix it**

Safety

SP1500 as supplied by DuPont-Mitsui Polychemicals is not considered hazardous materials. 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 the recommended processing temperature, certain amounts of fumes evolve from the resin. When resins are overheated, more fumes may occur. Adequate ventilation should be provided to remove fumes from the work area

During the purging, sometimes strong foaming may occur in the melt web, keep away from the die and pay attention to foaming.

For more detailed information on the safe handling Material Safety Data Sheet can be obtained from the DuPont-Mitsui Polychemicals serving you.