

BOOSTER EP

A COST-SAVING ALLOYING AGENT FOR NON-POLYOLEFINIC BLENDS

Products to be blended :

- PC	- SBS	- SAN
- PS	- PBT	- POM
- ABS	- PET	- TPE
- PPO/PS	- rigid PVC	

Functionality : What does it do ?

During the compounding/plasticizing process, the addition of 2-5% (weight) Booster EP reduces the size of the individual “minority components” in the blend, enabling a better dispersion of those components in the dominant matrix. By reducing the size of the minority components, its intrinsic surface is increased, resulting in a larger contact surface with better bonding behaviour.

Result: A more consistent, well-dispersed blend.

Characteristics of such a blend with Booster EP

Physical characteristics:

1. Improved impact strength
2. Improved tensile strength and elongation properties
3. Improved E-modulus
4. Better dispersion of additives (colour masterbatch, stabilizers, flame retardants etc.)
5. Fine dispersion of non-thermoplastic materials (aluminum coating etc.)

Processing characteristics:

In extrusion/compounding:

- a better dispersed polymer blend processes easier and faster, without any strand breaks
- reduction/elimination of de-lamination effects

In injection moulding:

- non-thermoplastic components (e.g. metallic coatings on CD-s) are invisibly dispersed in the polymer, allowing for a broad range of applications

Examples of cost savings:

1. Blending (slightly contaminated) PS scrap with (virgin or recycle) HIPS to get a high quality MIPS
2. Low cost recycling of metallized polycarbonate scrap
3. Reprocessing PET bottle scrap (if applicable: incl. PP ring) to a thermoforming-friendly sheet or film

Specific properties

	Value	Units	
Physical			
Density	910	kg/m ³	ISO 1183
Bulk Density	510	kg/m ³	ISO R60
Melt flow index			
190°C, 10 kg	1,8	g/min	ISO 1133
Thermal			
Melting point	120	°C	
Granular size			
Average granule diameter	3-4	mm	ASTM E11
Granules < 1mm	<1	%	ASTM E11
Granules > 5,6 mm	nil	%	ASTM E11
Storage			
• Dry place, away from direct sunlight, below 35°C			
Typical quantity needed 2-5 % of weight of final mixture			

Examples of applications :

- Recycling CD scrap into a reproducible high heat ABS/PC-ABS characteristic material
- Recycling HIPS scrap into MIPS for film and sheet
- Recycling PET bottles with PP cap-rings into a high quality, high impact PET resin

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