

POLYPROPYLENE-INFORMATION ON ADDITIVES.

SR.NO	ADDITIVES	INFORMATION
1	Acid scavengers	It allow polymers to be more resistant in humid environments (hydrolysis), as well as towards acids and radicals, therefore considerably decelerating the associated disintegration process of the affected polymers
2	Adhesion promoters	Adhesion promoters are substance that increase adhesive strength between the coating and the substrate
3	Antiblocking agents	Antiblock additives can prevent products from inappropriately sticking to surfaces and are routinely added to film and bags. They act by producing a slight roughening of the polymer surface.
4	Antifogging agents	Anti-fogging functional additives are developed to prevent fog from forming on the inside of packaging. It is frequently used for food packaging containers that see warm and cold very quickly.
5	Antimicrobials	Help prevent deterioration of plastic materials where part of the material might be susceptible to microbiological attack. Such attacks can cause staining, discolouration, odour and loss of aesthetics but more importantly, loss of electrical insulating properties, hygiene and overall loss of mechanical properties in the material.
6	Antioxidants	Help prevent "oxidation", the polymer reacting with oxygen. Oxidation can cause loss of impact strength, elongation, surface cracks and discolouration. Antioxidants help prevent thermal oxidation reactions when plastics are processed at high temperatures and light-assisted oxidation when plastics are exposed to UV light.
7	Antislip agents	Antislip additives modify the surface properties of polyolefin films to help reduce friction between surfaces.
8	Antistatic agents	Help to prevent the build up of static electric charge. Plastics are generally insulating and so have the capacity to build up static charges on the surface which greatly disturb processing procedures and can be an issue for hygiene and aesthetics.
9	Blowing and foaming agents	Form gases in the plastic to produce a foam material. The blowing agents form gases by breaking down on heating at a pre-determined temperature and form a foam structure within the plastic's polymer matrix.
10	Brighteners	Brighteners are designed to brighten colors or mask yellowing in lacquers, paints, inks, plastics, photo-processing solutions and fibers.
11	Coupling agents	A coupling agent is defined as a compound which provides a chemical bond between two dissimilar materials, usually an inorganic and an organic.
12	Crosslinking agents	A chemical bond formed between adjacent chains of a complex molecule such as a polymer.
13	Curing agents	Curing agent is the substance reacting with the primary film-forming matter of coatings and making it solidify to form the film.
14	Defoamers	A defoamer or an anti-foaming agent is a surfactant that suppresses or eliminates foam, with good chemical stability.
15	Dispersants	Dispersants are additives which improve the efficiency of the dispersion process by uniformly dispersing solid particles within slurry to assist in lowering viscosity, enhancing stability or increasing concentration.
16	Fillers	Curing agent is the substance reacting with the primary film-forming matter of coatings and making it solidify to form the film.
17	Flame retardants	To prevent ignition or spread of flame in plastic material. Plastics see substantial use in critical construction, electrical and transport applications which have to meet fire safety standards either by mandatory regulations or voluntary standards. Flame retardants are added to plastics to meet these requirements.
18	Heat stabilisers	To prevent decomposition of the polymer during processing. Processing usually results in temperatures well above 180 Deg C, which without the addition of heat stabilisers would result in the plastic material literally falling apart
19	Impact modifiers	Enables plastic products to absorb shocks and resist impact without cracking. Particularly relevant for polyvinyl chloride (PVC), polystyrene (PS) and polypropylene (PP) materials.
20	Light stabilisers /UV-stabiliser	Used to inhibit the reactions in plastics which cause undesirable chemical degradation from exposure to UV light.
21	Lubricants	Used to improve processability of plastics by increasing the flowability. Internal lubricants improve the melt flow of material by lowering the viscosity and heat dissipation.
22	Mold release agents	Mold release additives are designed to improve injection molding process by reducing friction, allowing more efficient processing and improving part quality time after time.
23	Nucleating agents	Nucleating agents help improve product stability and can prevent plastic from warping
24	Pigments	Tiny particles used to create a particular colour.
25	Plasticisers	Used to make plastics softer and more flexible.
26	Processing aids	Used to improve processability of plastics by increasing the flowability. Internal lubricants improve the melt flow of material by lowering the viscosity and heat dissipation High-polymeric processing aids also improve flowability of PVC compounds.
27	Slip agents	It reduce the coefficient of friction of a polyolefin film during critical production phases and help decrease the film's tendency to stick to the various working parts of the converter.
28	Thickeners (viscosity regulators)	Thickener is a substance which can increase the viscosity of a liquid without substantially changing its other properties.
29	Wetting agents.	Wetting agents increase the spreading and penetrating properties of a liquid by lowering its surface tension.

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