



Technical Data Sheet

Hydropol™ 30164P

Pellet Specification

Description

Hydropol™ 30164P is a modified co-polymer based on vinyl acetate hydrolysed monomers.

Hydropol™ 30164P has been specifically formulated for blown film

Properties

Particle Size 4-5 mm

Bulk Density 700-820 kg/m³

Solid Density 1200-1300 kg/m³

Peak Melting Temperature 216°C

Melt Flow Rate (230°C and 10kg) 4.0 - 6.5 g /10mins

Non-Toxic

Hydropol™ 30164P is non - toxic and all raw materials are listed as approved as direct food additives and food contact by EU and US regulatory listings.

Barrier Properties

Hydropol™ 30164P has high resistance to animal, mineral and vegetable oils, aliphatic and aromatic hydrocarbons, ethers, esters and ketones. They also offer excellent barriers to Oxygen.

Biodegradable

Hydropol™ 30164P is inherently biodegradable. Biodegradation has been observed by at least 20 different genera of bacteria and several yeasts and moulds which occur in activated sludge, compost, facultative ponds, landfills, anaerobic digesters and septic systems and in natural soil and aquatic environments. Sturm (aquatic) biodegradation tests show that the formulations degrade in the presence of activated sewage sludge at a similar rate to cellulose.

Hydropol™ 30164P has shown no ecotoxicological effect in Marine environments according to ASTM D6691.

Testing for Composability and Anaerobic Digestion is ongoing.

Anti-Static

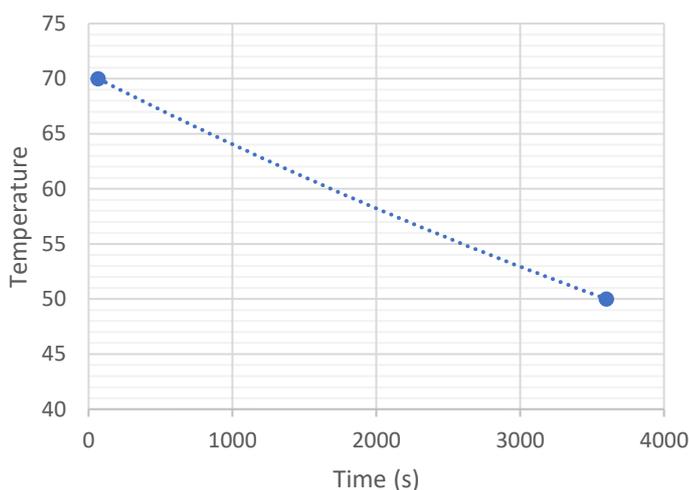
Because of their high hydroxyl group content and hygroscopicity, Hydropol™ compounds are inherently static dissipative, similar to cellophane, and cause little frictional static charging. Surface resistivities are in the range of 105–106 ohms/m².

Indicative Properties

Solubility

Each grade of Hydropol™ is engineered to solubilise at the maximum temperature for the right application.

Solubility of Time vs Temperature



Mechanical Properties*

*Indicative results only and can vary with storage conditions of film

	Unit				Method
Tensile Strength on 25µm film	60-90 N	Stress at Maximum Load MD	50-95 N	Stress at Maximum Load CD	ISO 537
	30- 70%	Elongation at Break MD	40-80%	Elongation at Break CD	
Tear Strength (Elmendorf) 23°C 50% RH on 25µm film	>4000 mN	MD	>7000 mN	CD	ISO 6383-2
Dart puncture on 25µm film	110 g				ASTM 1709
Light Transmission	92.5 %	Average			

Barrier Properties**

**Indicative results only based on 30163P but Aquapak do not believe to be any significant differences

OTR: 0% RH and 23°C on 35 µm film	0.0199	(cc/m ² /24 hr)			ISO 15105
Kit	12	(1-12)			Tappi T559

Storage and Shelf-life

Hydropol pellets have a minimum shelf life of one year if kept in cool, dry conditions with controlled humidity. Packaging should be resealed after opening to protect against moisture.

All data shown is indicative only. MD = Machine Direction CD = Cross Direction

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Commercial in Confidence

Typical Properties; these are not to be construed as specifications these are to be fully defined by the customer's end use and their testing