



Technical Data Sheet

Hydropol™ 30124

Pellet Specification

Description

Hydropol™ 30124 is a modified co-polymer based on vinyl acetate hydrolysed monomers.

Hydropol™ 30124 has been specifically formulated for blown film

Properties

Particle Size 4-5 mm

Bulk Density 745 kg/m³

Solid Density 1210 kg/m³

Peak Melting Temperature 225°C

Melt Flow Rate (230°C and 10kg) 4.3g/10mins

Non-Toxic

Hydropol™ 30124 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™ 30124 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™ 30124 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™ 30124 has shown no ecotoxicological effect in Marine environments according to ASTM D6691.

Testing for Composability and Anaerobic Digestion is ongoing.

Anti-Static

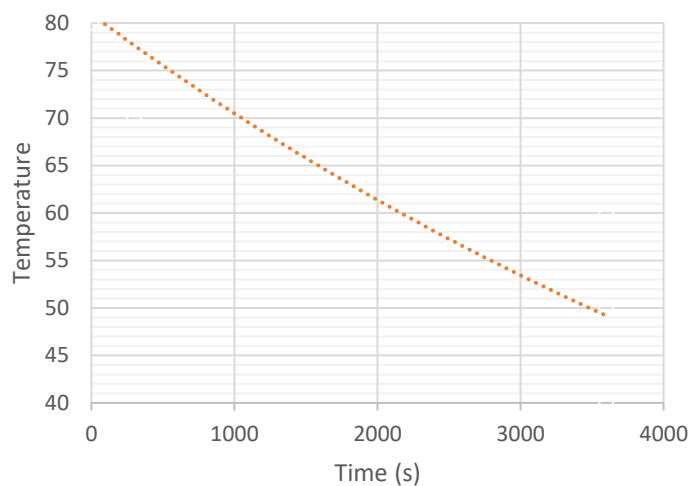
Because of their high hydroxyl group content and hygroscopicity, Hydropol™ compounds are inherently static dissipative, similar to cellophane, and cause little frictional static charging. Surface resistivities are in the range of 105–106 ohms/m².

Indicative Properties

Solubility

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

Solubility of Time vs Temperature



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Mechanical Properties*

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

	Unit					Method
Tensile Strength on 25µm film	MPa	Stress at Maximum Load MD	42			ASTM D882
	%	Elongation at Break MD	125.5			
	MPa	Stress at Maximum Load CD	69			
	%	Elongation at Break CD	53			
Tear Strength (Elmendorf) 23°C 50% RH on 25µm film	mN	MD	543	CD	>16000 exceeds the range of test equipment	ISO 6383-2
Tear Strength (Elmendorf) 10°C 30% RH on 25µm film	mN	MD	307	CD		
Dart puncture on 25µm film	g		52.g			ASTM 1709
Coefficient of Friction on 30µm film		Static	0.567	Dynamic	0.438	ASTM D1894-14
UV/A	%	Max	88.35	Average	83.94	
UV/B	%	Max	79.86	Average	77.89	
Light Transmission	%	Max	91.61	Average	90.90	

Barrier Properties**

**Indicative results only

OTR: 0% RH and 23°C on 35 µm film	cc/m ² /24 hr		0.137			ISO 1505-2
Kit	1-12		12			Tappi T559

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



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.

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Commercial in Confidence

Typical Properties; these are not to be construed as specifications