



Hydropol Resin

A water soluble, biodegradable material that can create a range of packaging products that are designed to eliminate plastic pollution at source

Hydropol is a high strength material which offers excellent barriers to oxygen, grease, and fats.

	Hydropol Resin Grade	Potential Applications	Water Solubility Temperature (25µm film)	Anti-block levels	Melt Flow Index g/10mins	Melt Temperature /°C*
Hot Water Soluble	30164P	Mono-blown film <ul style="list-style-type: none"> - Garment bags - Soluble Laundry Bags - Anaerobic Digestion - Aprons/Gloves - Anti-static bags Co.ex. blown film <ul style="list-style-type: none"> - Multi-layer film structures - Barrier films Injection Moulding	>70°C	0.3%	5.0 – 8.5 (230°C, 10kg)	210-215
	30167P	Co.ex. blown film <ul style="list-style-type: none"> - Multi-layer film structures - Barrier films* Injection Moulding	>70°C	None	5.0 – 8.5 (230°C, 10kg)	205 - 215
Warm Water Soluble	33103P	Co.ex. blown film <ul style="list-style-type: none"> - Paper Lamination - Multi-layer film structures 	>30°C	0.3%	13.5 - 20 (230°C, 10kg)	180 - 200
	33104P	Mono-blown film <ul style="list-style-type: none"> - Soluble Laundry Bags Co.ex. blown film <ul style="list-style-type: none"> - Paper Lamination - Multi-layer film structures - Barrier films 	>40°C	0.5%	4.5 – 10.5 (230°C, 10kg)	190 - 200
	33105P	Co.ex. blown film <ul style="list-style-type: none"> - Paper Lamination - Multi-layer film structures - Barrier films Injection Moulding	>40°C	none	4.5 – 10.5 (230°C, 10kg)	185 - 200
	33108P	Mono-blown film <ul style="list-style-type: none"> - Soluble Laundry Bags Co.ex. blown film <ul style="list-style-type: none"> - Paper Lamination - Multi-layer film structures 	>25°C	1.0%	15-23 (230°C, 10kg)	195 - 205
	55218P	Direct extrusion coating onto paper and board Injection Moulding	>40°C	none	10.0-14.5 (210°C, 2.16kg)	170-180

Masterbatches	Hydropol Resin Grade	Potential Applications	Water Solubility Temperature (25µm)	Recommended use levels**	Melt Flow Index g/10mins
	33105P-ABX	Masterbatch for use with WWS Hydropol Blown film grades - Anti-blocking for bags - High slip (reduced CoF) for lamination	Same as Hydropol carrier	5%	5.95 (230°C, 21.6kg)
	55200P-ABX	Masterbatch for use with WWS Hydropol extrusion coating grades in applications where blocking control is required.	Same as Hydropol carrier	10%	8.0 (230°C, 21.6kg)
	Colours		Water Solubility Temperature (25µm film)	Recommended use levels***	Melt Flow Index g/10mins
	43205-Red	Red Masterbatch for use with WWS Hydropol grades	Same as Hydropol carrier	2%	N/A
	43205-Blue	Blue Masterbatch for use with WWS and HWS Hydropol grades	Same as Hydropol carrier	3%	N/A
	43205-Black	Black Masterbatch for use with WWS and HWS Hydropol grades	Same as Hydropol carrier	4%	N/A
	43205-White	White Masterbatch for use with WWS and HWS Hydropol grades	Same as Hydropol carrier	2%	N/A

Aquapak understand the critical importance of rheology in polymers for extrusion so the melt flow index and melt temperatures are referenced as a guide only. As part of our technical transfer process, Aquapak would then discuss the parameters related required for successful extrusion.

* 30167P is Aquapak's preferred grade for barrier based on preliminary data, however 30164P still offers high oxygen barrier resistance

** These levels have been determined internally for low gauge applications (< 15µm), where it may be advantageous to use these masterbatches to reduce the tendency of the film to block in high humidity environments

*** Above these levels, the resulting product will no longer meet the specification for industrial compostability (BS EN 13432)