



packaging **flexible packaging**

aquaseal™ packaging coatings

for **paper, film**
& **foil**



Experience performance from our
water-based heat seal & barrier
coatings for paper, film & foil

○ waxes adhesives coatings

 **paramelt**
experience. performance.

Paramelt's unique Aquaseal™ product platform provides high-solids dispersions of polyolefin polymers, such as PE, PP, EAA, EVA and ionomers. This proven technology allows application of commercial, extrusion-grade polymers using traditional printing and coating techniques

The essence

- Advanced, high-shear, aqueous dispersion technology
- Yields water-based, high molecular weight, thermoplastic polymer dispersions
- Allows co-dispersion of complex polymer blends with waxes, resins and additives
- Formulation potential to optimize end-use and application properties such as rheology, COF, matting etc.
- Unique potential for innovation in coatings, sealants & adhesive layers on a large variety of substrates
- Water-based, solvent-free, safe and environmental-friendly technology
- Provides flexible packaging converters access to new markets and applications
- Allows the packaging designer to reduce material use and create totally new packaging concepts
- Papers coated with Aquaseal™ can be repulpable through appropriate existing processes

Target markets

Given the wide range of material types within the Aquaseal™ portfolio, the applications for these dispersions are extremely broad. Some typical examples in packaging converting are:

Paper & board

- Moisture (vapour) barrier
- Oil and grease barrier
- Heat seal (peel and fibre tear)
 - Coating to coating (A/A)
 - A/B seal to paper, film and foil

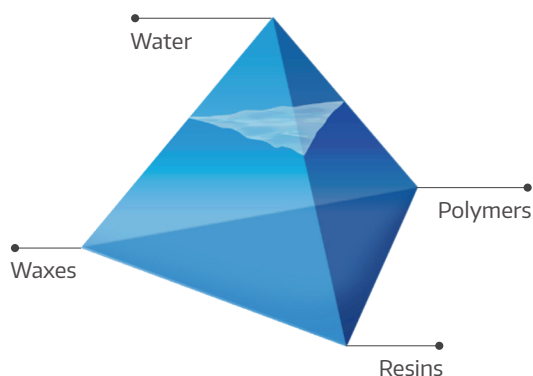
Aluminium foil

- Extrusion lamination primer
- Low temperature heat sealing
- Lidding sealants for a wide range of substrates

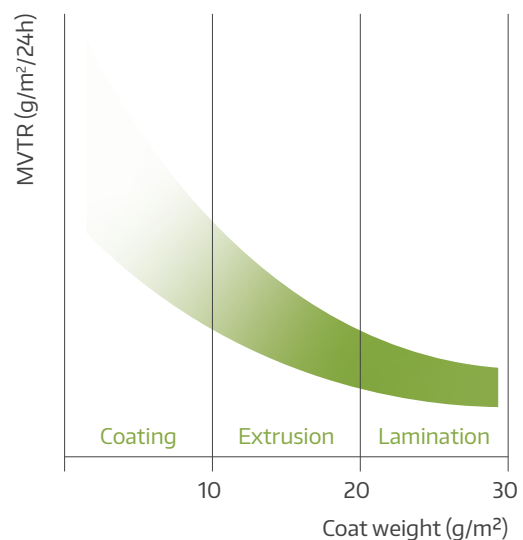
Plastic packaging - Rigid & flexible

- Heat sealing
 - Full coverage heat seal for horizontal and vertical FFS applications
 - Pattern applied sealants for optimized material use
 - Replacement of extrusion coating or film lamination for A/B sealing complexes
 - In-mould labelling & lidding sealants

Potential formulation space



Relative barrier performance



An innovative technology* with superior end-use performance and formulation flexibility

- Moisture vapour barrier
- Water resistance
- Oil & grease resistance
- Recyclable
- Heat-sealable
- Low temperature flexibility
- Direct food contact compliance
- Non-allergenic
- Range of melting points
- High and low coefficient of friction
- Coating transparency
- High filler loading

* Enabled by Dow Bluewave Micro-dispersion Technology

	Product	Solids (%)	Viscosity (mPa.s)*	MST**	Food contact	Base chemistry	Typical application area
Paper	Aquaseal X 2155	45	600	90	Y	acid copolymer	Medium temperature seal coating with very good A-A seal strength
	Aquaseal 2045	43	750	65	Y	acid copolymer	Low temperature seal coating with very good A-A seal strength
	Aquaseal X 2420	47	750	90	Y	TPE polyolefin	Heat seal and barrier (MVTR, O&G) coatings on paper, also sealing to PE and PP
	Aquaseal X 2401	42	300	90	Y	LDPE	Heat seal and barrier (MVTR, O&G) coatings on paper
	Aquaseal X 2404	42	300	85	Y	m-VLDPE	Heat seal and barrier (MVTR, O&G) coatings on paper
	Aquaseal X 2406	42	350	80	Y	EVA	Heat seal coatings on paper
	Aquaseal X 2330	43	300	90	Y	acid copolymer formulated for low CoF	Heat seal coating on paper for high speed packaging processes
	Aquaseal X 2366	47	325	90	Y	acid copolymer	Heat seal and barrier coatings on paper. Very good moisture vapour barrier
	Aquaseal X 2377	48	430	65	Y	biodegradable polyester	Compostable heat seal coating on paper
Foil & film	Aquaseal 1307	25	200	65	Y	acid copolymer	Low temperature seal coating as glass rim coating to support alu-foil lidding
	Aquaseal 2077	33	100	65	Y	acid copolymer	Low temperature seal coating for film like (B)OPP
	Aquaseal 2045	43	750	65	Y	acid copolymer	Low temperature seal coating for foil (e.g. processed cheese, chocolate wrapper) and film like (B)OPP
	Aquaseal X 2393	30	140	75	Y	acid copolymer	Medium temperature seal coating for OPP-film and foil
	Aquaseal X 2339	31	100	65	Y	acid copolymer	Low temperature seal coating for lidding on glass containers
	Aquaseal X 2261	43	500	65	Y	acid copolymer formulated for low CoF	Low temperature seal coating for foil (e.g. processed cheese, chocolate wrapper)
	Aquaseal X 2414	30	100	75	Y	acid copolymer formulated for low CoF	Medium temperature seal coating for foil (e.g. processed cheese, chocolate wrapper)
(flexible & rigid) Plastic packaging	Aquaseal X 2088	55	300	85	Y	PP co-polymer	Heat seal coating for sealing against PE, PP and OPP
	Aquaseal X 2151	50	150	65	N	hot melt dispersion	Heat seal coating for PS, PP, PET, PE, PVC, NC
	Aquaseal X 2191	55	200	65	N	hot melt dispersion	Heat seal coating for PS, PP, PE, PVC, NC. Suitable for IML applications
	Aquaseal X 2413	50	100	65	N	hot melt dispersion, low CoF	Similar as AQ X 2191 but formulated for low COF and anti-block
	Aquaseal X 2365	55	200	65	N	hot melt dispersion	Heat seal coating for PS, PP, PE, PVC, NC and especially PET
	Aquaseal X 2367	47	200	65	N	hot melt dispersion	Alkali-washable heat seal coating for IML applications
	Aquaseal X 2296	36	80	90	Y	acrylic formulated for low CoF	Heat sealable OPV for high speed roll-wrap applications

* Brookfield viscosity at 23°C

** Minimum sealing temperature (2 secs / 4 bar)



We are **Paramelt**

Founded in 1898, Paramelt has over 125 years of experience and today is a global producer of wax blends, adhesives and specialty dispersions. Operating from production sites in The Netherlands, United Kingdom, the USA and China we work together in a team of about 500 employees around the world. In most of our core applications Paramelt is the acknowledged market leader.

Aquaseal™ is a trademark of Paramelt Information and details given in this document, particularly any recommendations for application and use of our products are based on careful laboratory tests and prevailing practical experience and are believed to be correct at time of publication. For more information: paramelt.com/disclaimer

Paramelt Europe

Costerstraat 18
1704 RJ Heerhugowaard
The Netherlands
t +31 72 57 50 600

Paramelt USA

2817 McCracken Street,
Muskegon, MI 49441
United States of America
t +1 231 759 7304

Paramelt Asia

109 Sutong Road,
Suzhou Industrial Park
Suzhou, Jiangsu 215021, China
t +86 512 6761 6618

○ waxes adhesives coatings

www.paramelt.com


experience. performance.