



**TECHNICAL CONTROL**

**ADDITIVES**

# High-performance Water-based Additives

Advances in the performance of waterborne coatings enable their use in a wider range of applications, high-performance water-based additives are crucial to the development of high-quality water-based coatings. The volume of additives used in coatings is very small, but they can significantly improve the performance of coatings and have become an indispensable component of coatings. In the formulation of coatings, additives can adjust the film forming properties of coatings according to market needs.

In response to the continuous sustainable development needs in different industries, Technical Control's high-performance environmentally friendly water-based additives provide customers with solutions that can improve various physical properties of coating products while ensuring product sustainability.

## Water-based Crosslinker

With the continuous improvement of environmental protection requirements in the coating industry, water-based coating products are widely used in various applications. There is increasing demand for high-performance water-based products in the market. In order to meet the needs of sustainable development of waterborne coatings, Technical Control developed a series of eco-friendly crosslinkers.

Among these, given the advantages of eco-friendly, high reactivity and stable pot life, carbodiimide crosslinker is commonly used in waterborne PU coating system. It is a new high-performance crosslinker product. Moreover, carbodiimide crosslinker has an excellent performance in the aspect of chemical resistance, anti-stain, wear-resistance and improving the toughness and adhesion of coatings. Carbodiimide crosslinker provides a new eco-friendly and safe crosslinking solution for the waterborne PU thermal set system. Our Carbolinker provides sustainable alternatives for formulators in the coating industry that ensures high performance while reducing the environmental impact.

Product Code	Ingredient	Active Content (%)	Solvent	Solvent Content (%)	Viscosity 25°c(mPa.s)	NCO Content (%)
Isolink S100	Isocyanate	100	\	\	1500-4000	17.5±0.5
Isolink S200	Isocyanate	100	\	\	2000-5000	20.5±0.5
● Carbolinker D30	Carbodiimide	30	Water	70	≤100	\
● Carbolinker D40	Carbodiimide	40	Water	60	50-300	\
● Carbolinker D50	Carbodiimide	50	DPM	50	200-600	\
● Carbolinker D60	Carbodiimide	60	DPM	40	200-600	\
Isolink FF	Blocked Isocyanate	40	Water	60	300-500	* 4.5±0.2
Isolink PCI	Blocked Isocyanate	40	DPM/Water	5/55	300-600	* 4.5±0.2
Poly-azilink A50	Polymeric Aziridine	50	DMM	50	20-500	\
Poly-azilink A60	Polymeric Aziridine	60	DPM	40	500-3500	\

● Bluesign® certified product



\* Calculation based on theoretical data



## Water-based Thickener

Thickener is a rheological additive, it not only increases the viscosity of the coatings, and improve the storage stability, but also prevent the occurrence of sagging during the construction process, and can also endow the coating film with better mechanical properties. It is a very important additive for low viscosity waterborne coatings.

The water-based thickener developed by Technical Control has excellent compatibility with various water-based systems. It is characterized with excellent thickening and leveling properties, more efficient thickening effect and better viscosity stability.

Product Code	Chemical Type	Solid Content (%)	Viscosity 25°C(mPa.s)	Solvent	Solvent Content (%)	Features
● PT-20	HEUR	20±1	7000-20000	Water	\	A newtonian polyurethane rheology modifier, gives the formulation excellent leveling and flow.
PT-25	HEUR	25±1	1000-2000	Water	\	Medium to high shear, APEO free. It is suitable for thickening on topcoats.
PT-66	HEUR	40±1	1800-6000	BCS	23±1	Low to medium shear, APEO free. It provides a good balance between thickening efficiency, leveling and gloss.
● PT-67	HEUR	40±1	4000-10000	DB	23±1	Low to medium shear, APEO free. It provides a good balance between thickening efficiency, leveling and gloss.
PT-68	HEUR	40±1	1000-5000	BCS	20±1	Medium to high shear, APEO free. It provides a good balance between thickening efficiency, leveling and gloss.

● Bluesign® certified product



## Wax Emulsion

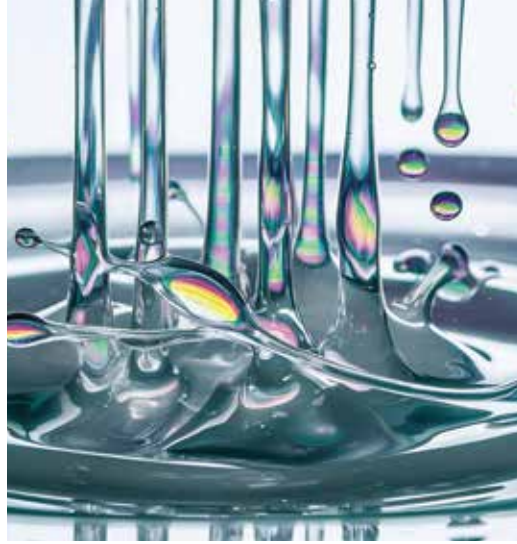
Water-based wax emulsions are widely used for optimizing the final performance of coatings and inks by efficiently controlling the surface properties. Advancing properties like matting & gloss, hydrophobicity, soft touch, abrasion & rub resistance, scratch resistance, release, corrosion protection and anti-blocking can be achieved by adding wax emulsion.

Depending on the properties of the wax in wax emulsions, different types of wax emulsion can be used for leather topcoat finishing, paper coatings, textile coatings, film coatings etc.

Product Code	Ingredient	Appearance	Gloss	Solid Content (%)	Melting Point (°C)	pH	Application
WAX-100	Carnauba Wax	Beige Emulsion	Matt	30±1	84	8-10	Leather, Textile, Paper
WAX-101	Carnauba Wax	Dark Brown Emulsion	Glossy	30±1	84	8-10	Leather, Textile, Paper
WAX-102	Carnauba Wax	Light Grey Emulsion	Medium-glossy	30±1	84	8-10	Leather, Textile, Paper
WAX-200	Fischer-Tropsch	Milky White Emulsion	Matt	25±1	105	10-12	Leather
WAX-201	Fischer-Tropsch	Milky White Emulsion	Glossy	25±1	105	10-12	Leather
WAX-400	PE	Milky White Emulsion	Matt	40±1	120-125	8-10	Leather, Textile, Paper, Plastic Films
WAX-401	PE	Light Translucent Emulsion	Glossy	35±1	137	6-8	Leather, Textile, Paper, Plastic Films







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