Pentachem

SINCE 1994



INNOVATIVE SUSTAINABLE SOLUTIONS

ADDITIVES FOR PAINTS AND COATINGS

PENTACHEM.IT

suggested

recommended

VOC: Volatile Organic Compounds
APEO: Alkylphenol Ethoxylates
PFAS: Per- and Polyfluoroalkyl Substances

Defoamers

Defoamers are used to reduce and eliminate the formation of air bubbles within the product. This can cause defects during application and negatively affect the visual quality of the final product. It is therefore particularly important especially during mixing, and most notably in water-based paints where foam formation is more likely to prevent this phenomenon from occurring.

These additives help prevent defects related to foam formation; a smooth, defect-free surface is less prone to wear and damage, which contributes to the overall performance and durability of the paint or coating.

	ANTIFOAM		
	MLW 300	MLW 305	SLW 24
Composition	Mineral oils		Silicones
State	Liquid		
NO VOC	✓	✓	✓
NO APEO	✓	✓	✓

FEATURES (MIN=1 MAX=4)			
Suppression of entrained foam	4	3	4
Microfoam suppression	3	3	4
Versatility of use in the production process	4	4	4

WATER-BASED			
Emulsion paints	⬟	⬟	⬠
Plasters & renders	⬟	⬟	⬠
Printing inks	⬟	⬟	⬠
Industrial coatings	⬠	⬠	⬟
Adhesives	⬟	⬟	⬠
Road marking paints	⬟	⬟	⬟



Dispersing and Wetting agents

Dispersing agents, in paints and coatings, help distribute the particles of the fillers evenly across the surface of the film. This prevents agglomeration and sedimentation, ensuring a smooth finish and accurate colour performance.

Wetting agents, by reducing the surface tension of water, enhance the wettability of pigment particles and other solid fillers, facilitating their dispersion.

	DISPERPAINT AC 30	PENTAWET	
		10	HP
Composition	PCE	Ethoxylated fatty acid	Glycols in solution
State	Liquid	Liquid	

FEATURES (MIN=1 MAX=4)			
Stability	4	4	4
Versatility	4	4	4
Colour development	4	4	4
Compatibility with fillers	4	4	4
Performance at high PVC or/in Slurry	3	4	4

WATER-BASED			
Emulsions paints	⬟	⬟	⬟
Plasters & renders	⬟	⬟	⬟
Printing inks	⬟	⬟	⬟
Industrial coatings	⬟	⬟	⬟
Road marking paints	⬟	⬟	⬟



Plasticizers and waterproofing agents

Pentachem plasticizers enhance and improve the plasticity of the film over time, preventing the formation of cracks on the surface. They do not alter the characteristics of the film and are fully compatible with all emulsions and typical substances used in water-based dispersion products.

Water repellents are additives that make the final film hydrophobic to water. They are distinguished into additives to be used within the formulation and as a final product to be applied as a top-coat, capable of making the surface glossy and hydrophobic, or creating marble-like effects on the surface (classic decorative wax).

	PENTAPLAST A 60	PENTAWAX		
		55	65	596
Composition	Blend of glycols in solution	Natural waxes and Marseille soap	Emulsion paraffin waxes	Polyethylene emulsion waxes
State	Liquid			
NO VOC		Low content	Low content	Low content
NO APEO		✓	✓	✓
FEATURES (MIN=1 MAX=4)				
Stability	4	4	4	4
Versatility	4	4	4	4
Compatibility with emulsions	4	4	4	4
Compatibility with alkyd resins	-	3	3	4
Performance over time on applied film	4	4	4	n.d
Abrasion resistance	-	3	4	3
Water repellency	-	4	4	3
WATER-BASED				
Emulsion paints	⬟	⬟	⬟	⬟
Plasters & renders	⬟	⬟	⬟	⬟
Printing inks	⬟	⬟	⬟	⬟
Industrial coatings	⬟	⬟	⬟	⬟
Road marking paints	⬟	⬟	⬟	⬟



Thickeners

Thickeners in paints and coatings are used to increase the viscosity and the consistency of the material, thereby improving its application and final finish. They work by creating a denser, more spreadable structure, and blend perfectly with cellulose ethers.

	PENTAVISC		
	A 10	P 20	P 50
Composition	Acrylic copolymer	Polyurethane	Polyurethane
State	Liquid	Newtonian fluid	Viscous liquid

FEATURES (MIN=1 MAX=4)			
Performance even when diluted	4	4	4
Stability of the final product over time	4	4	4
Compatibility with dispersing systems and emulsions	4	4	4
Resistance to bacterial attacks	4	4	3
Anti-splattering	4	4	4
Compatibility with cellulose ethers	4	4	4

WATER-BASED			
Emulsion paints	⬟	⬟	⬟
Plasters & renders	⬟	⬟	⬟
Printing inks	⬟	⬟	⬟
Industrial coatings	⬟	⬟	⬟
Road marking paints	⬟	⬟	⬟



Cellulose Ethers

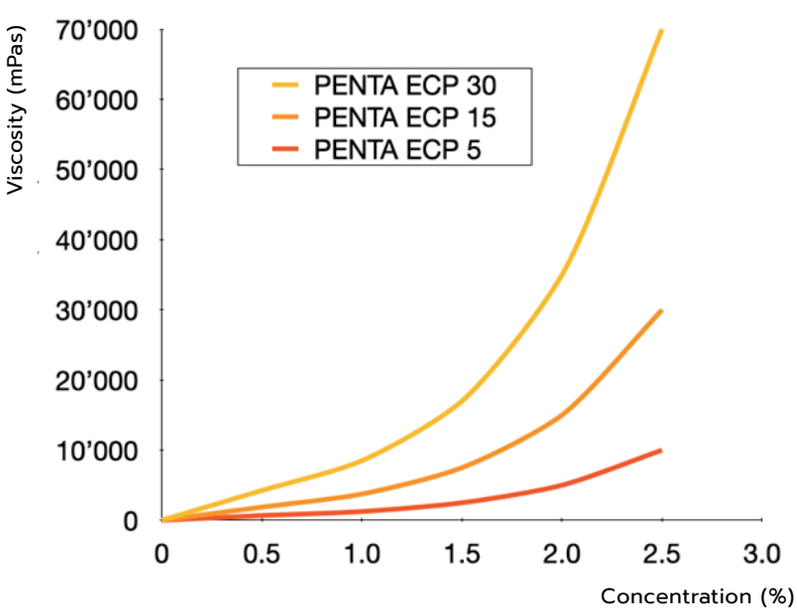
Pentachem has developed a line of delayed HPMC (Hydroxypropyl Methylcellulose) in various grades, suitable for the formulation of water-based products. Their use helps the system to mantain the suspension of the fillers, preventing sedimentation.

Easy to disperse, they can be combined with synthetic modifiers to optimize and achieve the desired viscosity. They facilitate tool glide and prevent splattering effects during the application of the final product.

	PENTA ECP 5	PENTA ECP 15	PENTA ECP 30
Composition	HPMC		
State	Powder		
Viscosity	4.000 ÷ 6.000 mPa.s	13.000 ÷ 18.000 mPa.s	30.000 ÷ 40.000 mPa.s

FEATURES (MIN=1 MAX=4)			
Water retention	4	4	4
Viscosity preservation	4	4	4
Shear stress stability	4	4	4
Resistance over time	4	4	4

WATER-BASED			
Emulsion paints	⬟	⬟	⬟
Plasters & renders	⬟	⬟	⬟
Printing inks	⬟	⬟	⬟
Industrial coatings	⬟	⬟	⬟
Adhesives	⬟	⬟	⬟
Road marking paints	⬟	⬟	⬟





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