

### Product Description

Chemical characterization	Zinc molybdenum orthophosphate hydrate
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Excellent results have been achieved by applying HEUCOPHOS® ZMP in water based coating systems using one-part polyurethanes and acrylics.

### Technical Data

	Unit	Value	Test Method
Zinc as Zn	[% ]	53.5 - 56.5	acc. to ISO 6745
Molybdenum as MoO <sub>3</sub>	[% ]	1.2 - 2.2	ICP-OES
Phosphorous as PO <sub>4</sub> <sup>3-</sup>	[% ]	37.0 - 40.0	acc. to ISO 6745
Water-soluble chloride	[% ]	max. 0.025	acc. to ISO 787-13
Water-soluble sulphate	[% ]	max. 0.05	acc. to ISO 787-13
Lead as Pb	[ppm]	max. 10	ICP-OES
Cadmium as Cd	[ppm]	max. 10	ICP-OES
Loss on ignition 600 °C	[% ]	6.0 - 9.0	acc. to ISO 6745
Conductivity	[µS/cm]	max. 250	acc. to ISO 787-14
pH value		5.5 - 7.5	acc. to ISO 787-9
Density	[g/cm <sup>3</sup> ]	typ. 3.5	acc. to ISO 787-10
Bulk density	[g/cm <sup>3</sup> ]	typ. 0.4	
Tamped density	[g/cm <sup>3</sup> ]	typ. 0.9	acc. to ISO 787-11
Oil absorption	[g/100g]	typ. 25	acc. to ISO 787-5
Sieve residue 32 µm	[% ]	max 0.01	acc. to ISO 787-7
Average particle size	[µm]	2.0 - 3.5	acc. to ISO 13319

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Application Profile			
Solvent based coatings			
Short and medium oil alkyds	++		●
Long oil alkyds			
High solids alkyds	+	✓	●
2K Epoxies	+		
Epoxy esters	+		
High solids epoxies	+	✓	
2K Polyurethanes			
High solids polyurethanes		✓	
Moisture cured polyurethanes			
Silicone resins			
Water based coatings			
Alkyd emulsions	+	✓	●
2K Epoxies	++	✓	
1K Polyurethanes	+++	✓	●
2K Polyurethanes	+	✓	
Silicone resins		✓	
Acrylic and modified acrylics	+++	✓	●
Butadiens	++	✓	
Specialty coatings			
Coil coatings			
Aircraft primers			
Wash and shop primers			
Direct to metal	+		
UV cured systems	+++	✓	
Powder coatings		✓	

+++ Excellent choice

++ Good choice

+ Possible choice

✓ Resin with low or no VOCs

● Additionally recommended in combination with HEUCORIN® RZ

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