




synthos



FORMULAS
FOR A BETTER
WORLD

AP40
OSAKRYL®



ADVANCED ACRYLIC DISPERSION
FOR DEEP PENETRATING PRIMERS

Osakryl® AP 40

Dispersion recommended for the formulation of deep penetrating primers for mineral substrates (e.g. of concrete, bricks, plasterboards, gypsum and cement-lime plasters) and wood stains or impregnants.

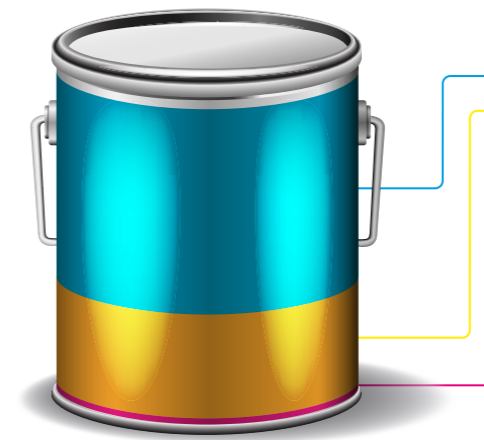
Dispersion characteristics:

- APEO-free
- film formation with no solvent
- low residual monomers content
- high water resistance
- high substrate binding efficiency
- very good penetration into porous substrates
- alkali resistance
- high adhesion
- electrolytes resistance

Application		
	deep penetrating primers, universal primers, impregnates, wood stains	
Dispersion features		
	APEO-free, solvent-free	
Polymer type	acrylic copolymer	
Specification	pH	7,5-8,5
	Solids content [%]	29 ± 1
	Brookfield viscosity [mPa·s]	5 ÷ 50
	MFFT [°C]	ca. 0
	Tg [°C]	ca. 20
Parameters	Mean particle size [nm]	40 ÷ 50

Primers

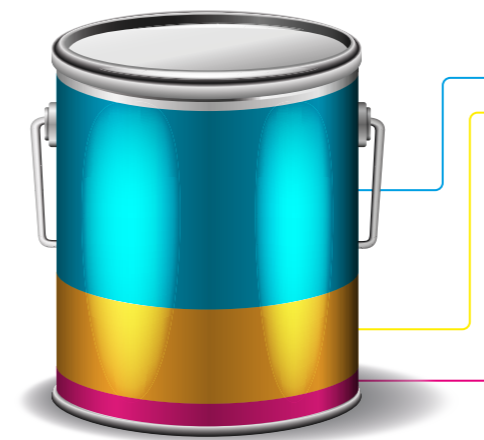
Deep penetrating primer



Example of primer components:

raw materials	% weight	components
WATER	65,60 %	
DISPERSION	34,15 %	Osakryl® AP 40 – Synthos
ADDITIVES	0,25 %	Nuosept™ BIC 0,20 %
		TEGO® Foamex 24 0,05 %

Wood stain



Example of stain components:

raw materials	% weight	components
WATER	63,01 %	
DISPERSION	30,05 %	Osakryl® AP 40 – Synthos
ADDITIVES	6,94 %	KELZAN® ST 0,13 %
		Drewplus™ S-4273 0,30 %
		TEGO® Dispers 755 W 1,00 %
		LUCRAMUL® WT 100 0,50 %
		Propylenglykol 2,00 %
Xfast® 3,01 %		



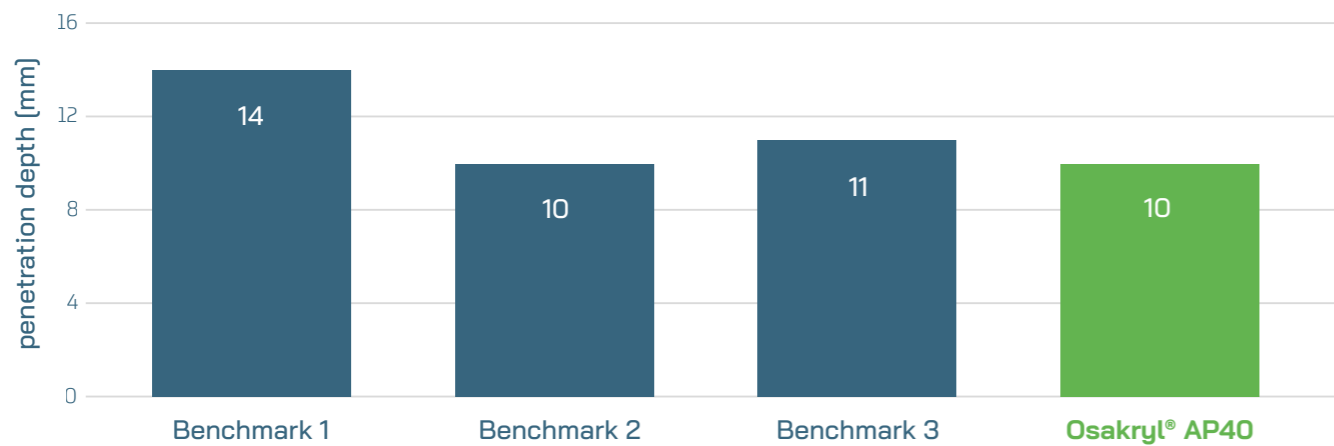
Water resistance

After drying in the temperature above MFFT Osakryl® AP40 forms a transparent, water resistant film. In contrast to competitors' products film whitening after 24 h immersion in demineralised water at 23 °C does not occur. Primers based on Osakryl® AP40 exhibit outstanding water resistance and may provide a barrier to salt migration.



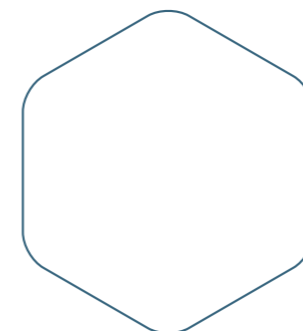
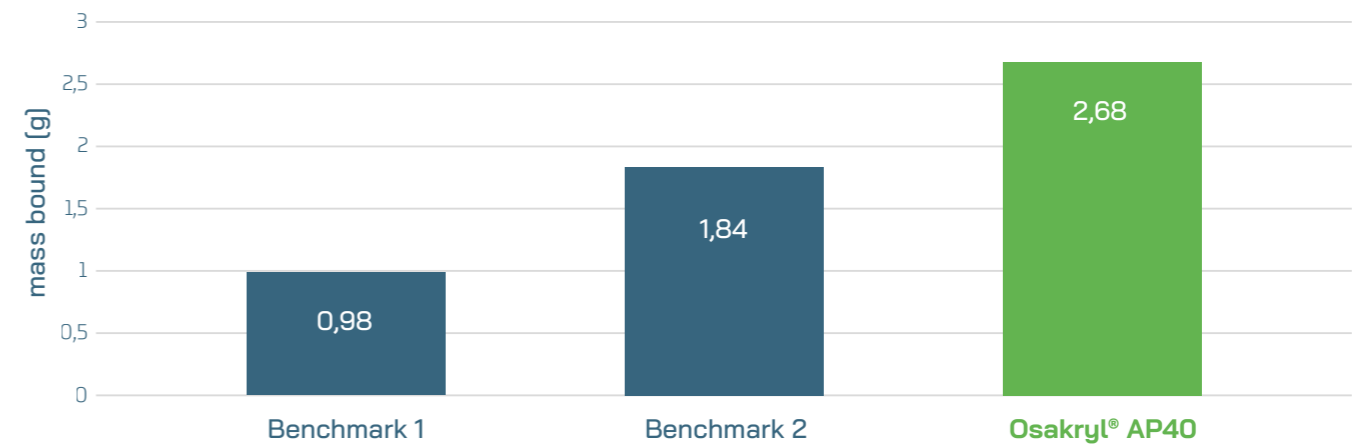
Penetration power

This test is performed to evaluate the penetration properties of primers on mineral substrates. 1 ml of primer (10 % solids content) is added dropwise on the surface of 1 cm x 1 cm of school chalk. The sample is dried at 100 °C for 2 h. The measurement of penetration depth is made by using a drop of water to see the difference in absorbency of the chalk. The penetration power is inversely proportional to solids content of the primer and it depends on the porosity of the substrate.



Consolidation ability

The test enables evaluation of the consolidation properties of a primer for mineral substrates. A slurry of 40 % by weight of water and 60 % by weight of Omyacarb 2VA is prepared in a dissolver. Then it is poured into glass dishes (4 cm in diameter and 1,5 cm in height). The slurry is dried at 100 °C for 4 h and then conditioned for 24 h at room temperature. 0,5 ml of the primer (10 % solids content) is added dropwise on the surface of the disc at a rate of about 1 drop per second. The sample is dried at 100 °C for 2 h. After drying the dish is rinsed under running water, then the core is dried for 2 h at 50 °C. The dried core is weighted. The higher the weight, the better the consolidation.



Additives recommendation

Notes

Antifoams:

- Romis SW-10
- Siliconi WS 352
- Siliconi WS 360
- Siliconi B 10
- TEGO® Foamex 24

Biocides:

- Acticide® ICB 4
- Nuosept™ BIC
- PREVENTOL® D 8
- MERGAL® 753
- Acticide® LA 1209



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