



VARIPHOB® HP 121

Innovative water-repellent treatment for sustainable building protection

CHT
SMART CHEMISTRY
WITH CHARACTER.

VARIPHOB® HP 121

Sustainable surface protection

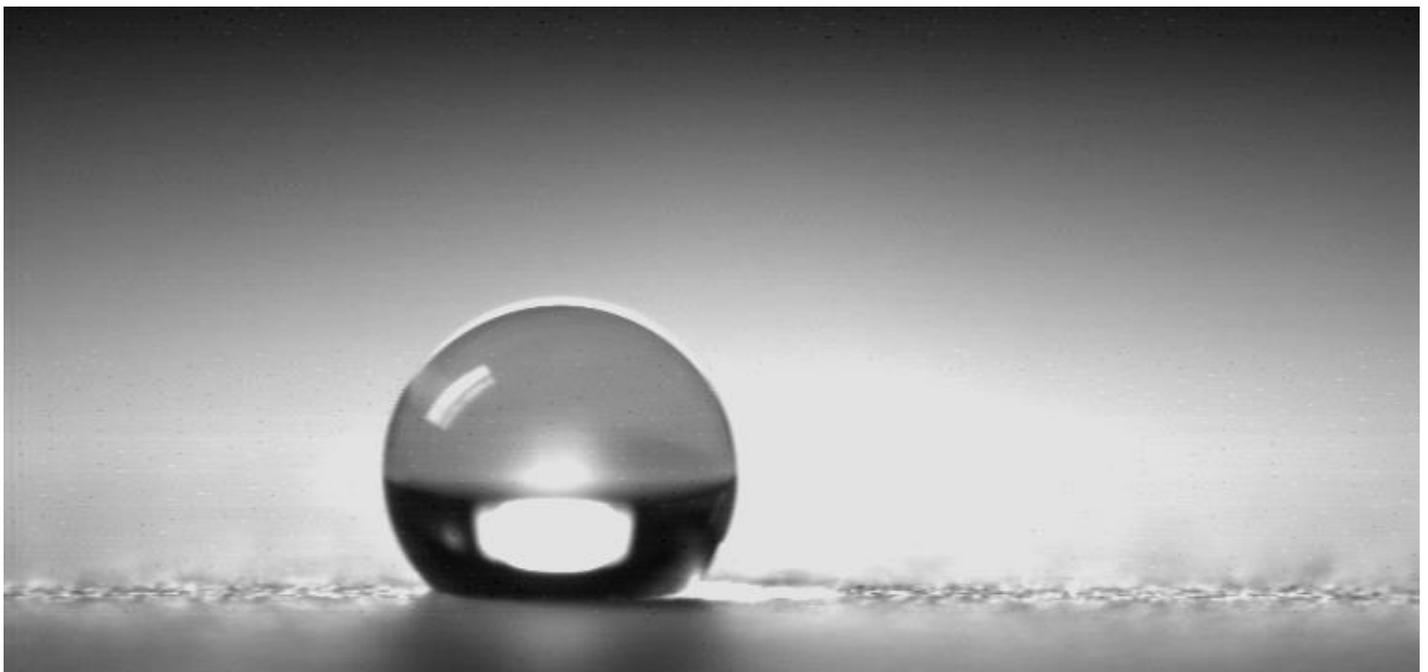
For years, the combination of polysiloxanes and silicone resins in paints has been regarded as state of the art for excellent water protection. Polysiloxanes are mainly responsible for the early water resistance and the beading effect. The silicone resins additionally reduce the water absorption and have a much better water vapour permeability compared to organic resins.

The increased water vapour permeability improves the moisture transport necessary to avoid mould.

With VARIPHOB HP® 121 CHT succeeded in combining the advantages of both systems in one product. VARIPHOB HP® 121 combines the highly hydrophobic properties of polysiloxanes with the reactivity and "breathability" of silicone resins in a special way.

With its "TWO IN ONE" performance, the application of VARIPHOB HP® 121 makes it easier for the customer to develop recipes and contributes significantly to the reduction of raw materials.

In specific formulations, it is even possible to reduce the total amount of silicone raw materials in the formulation by using VARIPHOB HP® 121 while maintaining a consistently good performance profile.



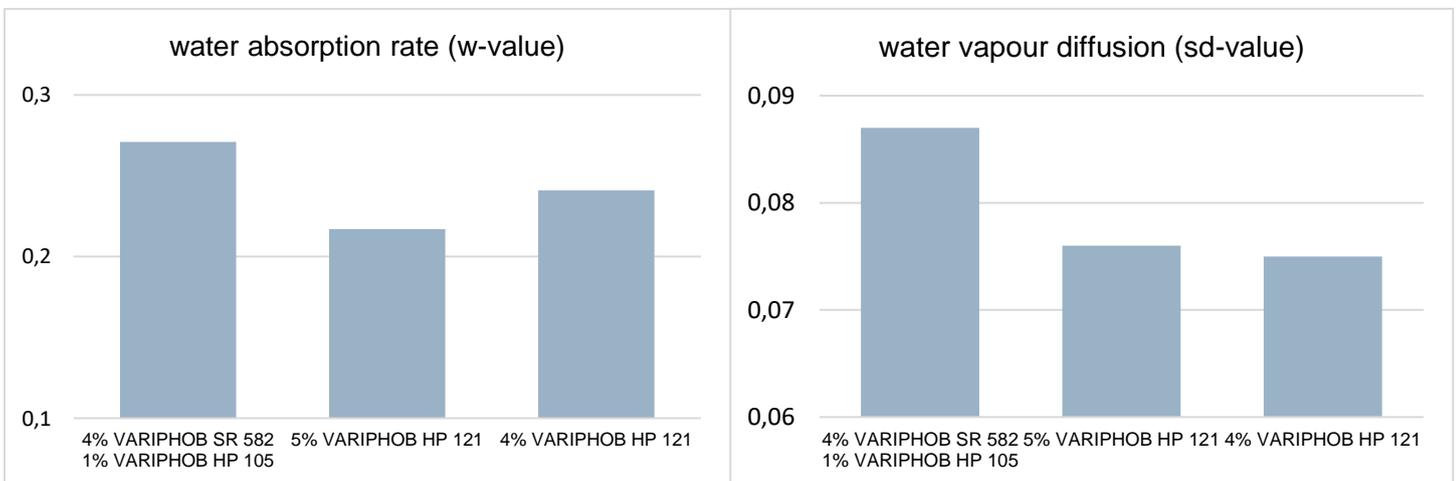
Product performance

Performance comparison of CHT hybrid technology in different concentrations with the combination of silicone oil and silicone resin in a facade paint.

Products VARIPHOB® HP 105: Polysiloxane emulsion (active content 50%)
 VARIPHOB® SR 582: Silicone resin emulsion (active content 50%)
 VARIPHOB® HP 121: Crosslinking polysiloxane emulsion (active content 50%)

Tests Water absorption rate [w - value] in accordance with DIN EN 1062-3
 Water vapour diffusion [sd -value] in accordance with DIN EN ISO 7783-2
 Contact angle [°]

	w₂₄-value	sd-value	Contact angle
Facade paint with additions of:	[kg/(m ² xh ^{0.5})]	[m]	[°]
4% VARIPHOB® SR 582 + 1% VARIPHOB® HP 105	0.271	0.087	100
5% VARIPHOB® HP 121	0.217	0.076	130
4% VARIPHOB® HP 121	0.241	0.075	129



Product profile

The strengths at a glance

- All-in-one hydrophobising by hybrid technology
- Low water absorption(W value)
- High water vapour permeability (SD value)
- Suitable for environmental certification
- Good early water resistance
- Low soiling tendency
- Saving of resources

Recommended application fields

- Dispersion paints and plasters
- Silicone resin paints and plasters

	VARIPHOB® HP 121
Appearance	White emulsion
Concentration	Approx. 50%
Crosslinking property	Self-crosslinking
Durability	> 12 months
Recommended application amount:	4 - 7%

