

# VINNAPAS® EP 3888

## Binder for Low-Odor and Very-Low-VOC Architectural Coatings with High Scrub Resistance, Designed for a Broad PVC Range

VINNAPAS® EP 3888 is our state-of-the-art binder for flat and eggshell interior and exterior paints and plasters. It is ideally used above the critical pigment volume concentration (CPVC) and combines low-odor and very-low-VOC capability with excellent performance and cost-in-use benefits.

### VINNAPAS® EP 3888 – Your Gateway to Formulating Low-Odor and Very-Low-VOC Architectural Coatings

VINNAPAS® EP 3888 enables the formulation of low-odor and very-low-VOC paints (< 1 g/l), since it has a very low residual monomer content (< 200 ppm) and does not need organic solvents or coalescing agents to achieve optimum film formation. Its odor profile is noticeably subdued, especially compared to standard styrene-acrylic or vinyl-acrylic technology, resulting in quicker reuse of rooms after renovation. Furthermore, it is produced without the use of APEOs and features very low formaldehyde (< 20 ppm). The product is therefore especially suitable for places where low-emission paints are essential, e.g. in children's rooms, hotels and public buildings, such as hospitals and schools. VINNAPAS® EP 3888 is suitable for formulating paints that comply with major international ecolabels.

#### Properties of VINNAPAS® EP 3888

Solids [wt. %]	49 – 51
T <sub>g</sub> [°C]	10
MFFT [°C]	2
Viscosity [mPa s]	700 ± 500
Stabilization	PVOH + ST

### VINNAPAS® EP 3888 – Your Solution for Top-Performance Architectural Coatings

VINNAPAS® EP 3888 offers best-in-class performance in a variety of areas, such as scrub resistance and hiding power. Here, VINNAPAS® EP 3888 can outperform competing technologies, including traditional and low-T<sub>g</sub>/MFFT styrene acrylics. Because the dispersion enables very high scrub resistance, the resulting paint film is easier to wash and clean without negative impacts for the appearance of the paint. Furthermore, the binder's good workability facilitates application. VINNAPAS® EP 3888 also allows the formulation of one-coat paints. This reduces the downtime of the facility and rooms can be quickly used again.



#### Recommendations for VINNAPAS® EP 3888

##### Gloss Levels

Flat	●●●
Eggshell	●●
Satin	●

##### Typical Applications

Interior wall paints	●●●
Ceiling paints	●●●
Interior plasters	●●
Interior primers	●
Glass fiber wall covering paints	●
Exterior paints	●

##### End-User Suitability

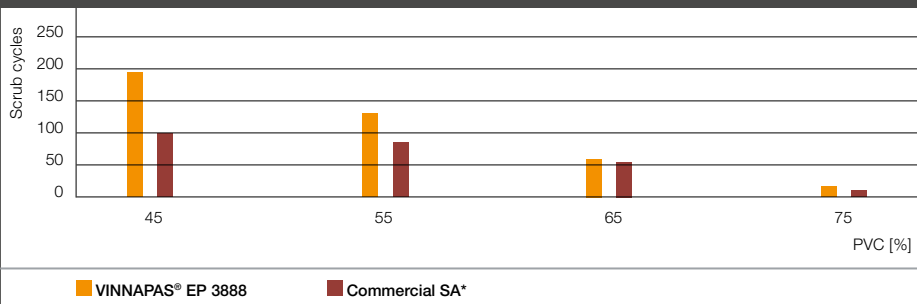
Do-it-yourself	●●●
Contractors	●●●

Suitable ● Recommended ●● Highly recommended ●●●

### VINNAPAS® EP 3888 Offers Attractive Cost-in-Use Benefits

Its good thickener response allows formulators to improve cost-in-use performance and adjust workability. The binder's excellent scrub resistance not only increases performance, but also cuts costs at a high performance level, since binder usage can be reduced by proportionally raising the PVC content. The improved hiding power compared to standard styrene acrylic systems leads to less TiO<sub>2</sub> usage, resulting in lower formulation costs. The improved hiding power also facilitates application, making one-coat paints possible, thus reducing application costs. Furthermore, VINNAPAS® EP 3888 allows for the formulation of coalescent- and plasticizer-free paints, saving additional material costs.

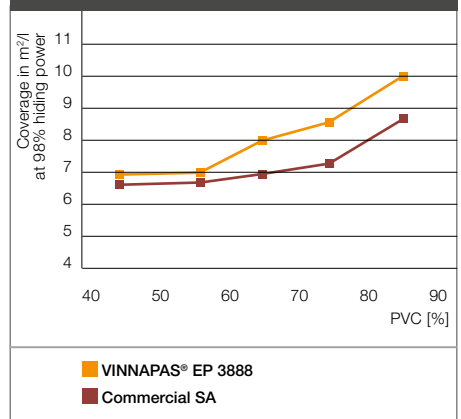
### Comparison of Scrub Resistance between VINNAPAS® EP 3888 and a Commercial Styrene Acrylic According to ASTM D2486 Using an Abrasive Scrub Medium



\*Tg = 22; formulation contains coalescing agent

Comparison of scrub resistance between VINNAPAS® EP 3888 and a commercial styrene acrylic (SA) at different PVC levels in an interior white paint formulation. VINNAPAS® EP 3888 exhibits much better scrub resistance over a wide range of PVC formulations.

### Hiding Power Comparison as per ISO 6504-3



In terms of hiding power, VINNAPAS® EP 3888 shows better performance than standard styrene acrylics across a wide range of PVC levels. Consequently, a reduction of the TiO<sub>2</sub> level is possible.

### Comparison of Hiding Power between VINNAPAS® EP 3888 and Commercial Styrene Acrylic (SA)

Paint formulation with 55% PVC



VINNAPAS® EP 3888

Commercial SA

Paint formulation with 70% PVC



VINNAPAS® EP 3888

Commercial SA

### Properties at a Glance:

- Suitable for flat to eggshell paints
- Suitable for various applications, from wall paints to primers and plasters
- Very high scrub resistance
- Better hiding power than standard acrylic systems at the same PVC level
- Excellent response to thickening agents
- Suitable for both contractor and DIY applications
- Produced without the use of APEOs
- Very low residual VAM (< 200 ppm)
- Low-odor and very-low-VOC (< 1 g/l) paints possible
- Allows formulation without coalescing solvents
- Very good color acceptance
- Highly recommended for interior applications and suitable for exterior use

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