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CREATING TOMORROW'S SOLUTIONS

CONSTRUCTION I NORTH AMERICA I VINNAPAS® EF575

VINNAPAS® EF575 – VAE BINDER WITH OPTIMAL COST PERFORMANCE RATIO FOR CONSTRUCTION ADHESIVES

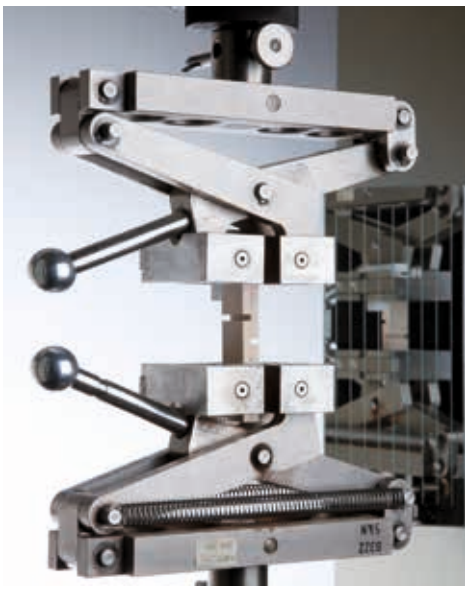
VINNAPAS® EF575 is a versatile vinyl acetate-ethylene (VAE) binder used for construction adhesives that provides great flexibility in performance while offering a sustainable, economic solution.

Low Environmental Impact

VINNAPAS® EF575 is manufactured without the addition of any APEO containing surfactants, defoamers, or formaldehyde/formaldehyde donors. It also has a total free residual vinyl acetate monomer content of <1,000 ppm.

Strong Bond to a Variety of Substrates

VINNAPAS® EF575 provides great formulating flexibility as a binder used in construction adhesives. It demonstrates excellent adhesion to materials such as fiber reinforced plastic (FRP) and poly(vinyl chloride) (PVC) and also yields strong penetration into porous surfaces. VINNAPAS® EF575 can be formulated with various pigments, fillers, and thickeners to pass ASTM C557.



Measuring wood to wood shear strength.

Properties of VINNAPAS® EF575	
Solids [wt%]	54.0–56.0
Viscosity [mPa.s]	200–850
pH	4.0–5.0
Density [g/cm³]	Approx. 1.07
Particle size [µ]	Approx. 0.2
T_g [°C]	Approx. 0

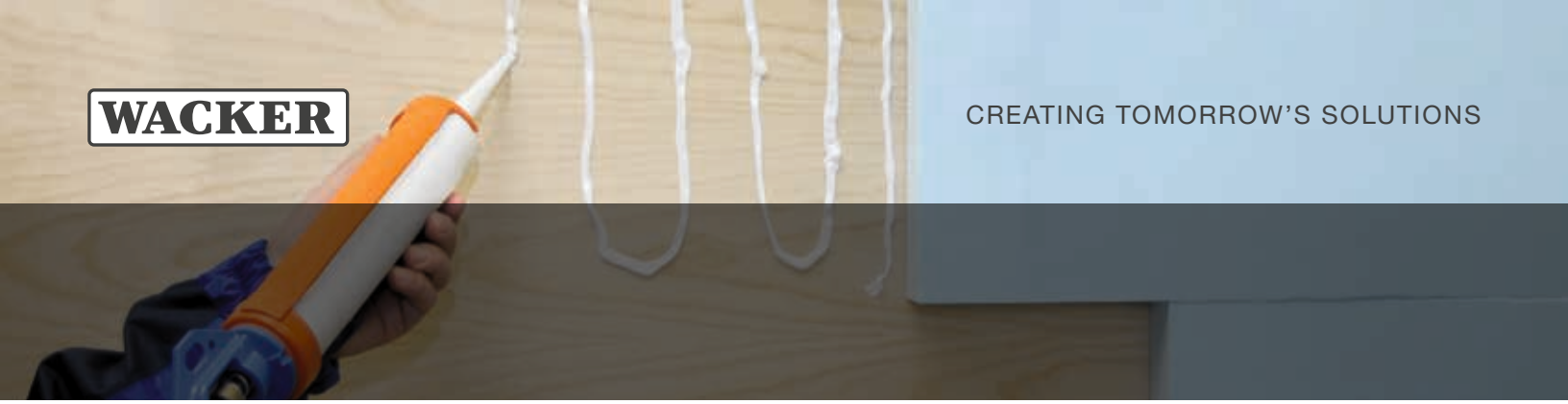
Benefits of VINNAPAS® EF575 in Construction Adhesives

- Excellent adhesion to wood, FRP, PVC
- Can be formulated to pass ASTM C557
- Can be formulated with various pigments, fillers, and thickeners
- Compatible with other binder chemistries
- Does not contain any sources of formaldehyde or formaldehyde donors
- Manufactured without the use of alkylphenol ethoxylate components

VINNAPAS® EF575 Construction Formula Performance Acc. to ASTM C557

Test	Requirement	Result
Tensile strength, 24 hours	15 psi	28 psi
Tensile strength, 14 days	25 psi	29 psi
Shear strength, 24 hours	10 psi	97 psi*
Shear strength, 14 days	40 psi	76 psi*
Accelerated aging	No cracking or flaking	No cracking or flaking
Freeze-thaw stability	3 cycles, no change in workability 24 hours shear strength: 10 psi	No change in workability 100 psi*
Static shear load	No bond line movement (38 °C and 22 °C)	No bond line movement at either temperature

* Samples resulted in complete substrate failure.



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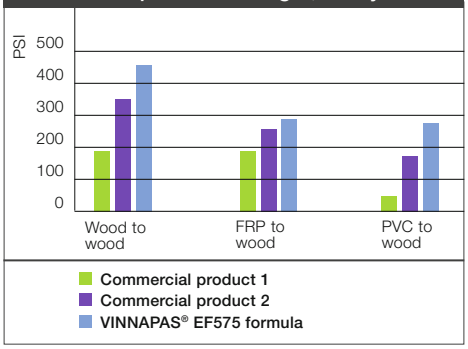
VINNAPAS® EF575 – General Purpose Construction Formula FLI-119				
Material	**Pounds**	**Gallons**	**Weight [%]**	**Supplier**
VINNAPAS® EF575	322.90	36.28	25	WACKER
Igepal® CA-897	12.92	1.55	1	Rhodia
Tamol™ 851	12.92	1.55	1	Dow Chemical
Ethylene Glycol	12.92	1.39	1	
Foamaster® MO NXZ	2.58	0.36	0.2	BASF
Drikalite®	684.55	30.29	53	Imerys
Natrosol™ 250HHR	16.79	1.45	1.3	Ashland
Water	226.03	27.13	17.5	
	1295.77	**100.00**	**100.0**	

Physical Properties	
Density [lbs./gal.]	13.0
% solids, by weight	69.3
% solids, by volume	52.4
VOC [g/l]	19
Pigment to binder ratio	3.9
Viscosity [mPa.s]	290,000
pH	7.6
PVC	58.0

Formulation Stability	
4 week 50 °C viscosity [mPa.s]	320,000
Freeze-thaw stability	5 cycles

VINNAPAS® EF575 Formula vs. Commercial Products: Lap Shear Strength, 7 Day Cure



VINNAPAS®

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