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Acronal® 4624

High Performance for Eco-Friendly Mortar and Cement Formulations

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Acronal **4624** is an aqueous all-acrylic dispersion copolymer designed for modifying mortar compositions for patching and repair. Mortars formulated with Acronal **4624** are very workable with good pot life, even at elevated temperatures. The absence of ethylene glycol and APEO surfactant makes Acronal **4624** the clear choice for interior applications and green construction.

Benefits of Mortar Modification

- Extended set time
- Reduced spalling
- Crack mitigation
- Increased bond and tensile strength
- Impermeability
- Increased freeze thaw and abrasion resistance

Product Features

- Non-APEO
- Non-ethylene glycol
- Low foaming
- Low VOCs
- Freeze thaw stable
- Excellent mortar appearance

Properties

Solid content, weight %	ca. 47
pH	ca. 9.5
Viscosity, mPa-s	ca.40
Glass transition temp., Tg °C	ca.10
Bulk density, lbs/gal.	ca. 8.8
Dispersion type	Acrylic
Freeze/thaw stability (-18C)	4 to 5 cycles

Performance Expectations

Modified mortars should demonstrate consistent color, appearance, and performance properties of the final product. Compared to unmodified mortars, Acronal **4624** modified mortars provides enhanced water resistance, increased flexural and compressive strengths, and increased adhesion to old concrete, masonry, and other substrates such as brick, wood, and EPS foam. Due to Acronal **4624**'s all-acrylic backbone, mortars modified with this polymer also have excellent resistance to yellowing after weathering exposure.

Acronal **4624** improves the physical properties of mortar strength, providing both the application and field performance advantage that are required from modified mortars.

Excellent Mortar Appearance

Mortar mixes formulated with Acronal **4624** have a similar uniform color on the surface and throughout the underlying mixture when in both wet and dried (cured) states.

**Picture to the right shows wet mortar appearance*

Acronal **4624**

Low Foaming – Ease of Use

In a cylinder shake test, Acronal **4624** generates very minimal foam relative to other common dispersions used to modify mortar mixes.

This reduced foaming tendency, important in product pumping and container filling operations, provides a key "ease of use" benefit when using Acronal **4624**.

Acronal 4924

Competitive Latex

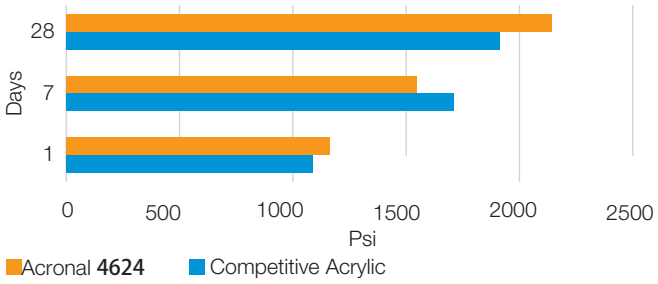
Acronal 4624

Properties in Mortar Mix Formula

Suggested Mortar Mix Formulation

Ingredient	Weight	Ratio
Type I/II Portland Cement (C)	100.0	--
Graded sand (S)	275.0	2.75 S/C
Acronal **4624** polymer modifier (P)	159.7	0.15 P/C
Water	110.0	--

Compressive Strength (psi)



Characteristic – Typical Property Grey type I/II cement	
Mortar appearance (wet)	Uniform
Foaming tendency	Low
Vicat - Initial / Final set-time	2:30 hrs – 4:47 hrs
Comparable working time at elevated temperature (100° F)	> 60 min
Mortar cube water uptake	11%*
Compressive strength	See chart
Shrinkage	0.07%
UV stability color change white mortar	none
Pull-off bond strength, psi	ca. 250

** Compared to 50+% without polymer*

Safety

General

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State and Local health and safety regulations, thorough ventilation of the workplace, good skin care and wearing of protective goggles.

Material Safety Data Sheet

Please refer to the most current version of the Material Safety Data Sheet that can be found on-line at www.basf.us/sds

Storage and Handling Recommendations

Acronal **4624** has a shelf life of six months from delivery date, provided it is stored in accordance with the "Handling and Storage of polymer dispersions" brochure. Technical information regarding the storage of BASF polymer dispersion products is available upon request.

About the Dispersions & Resins Business

The Dispersions & Resins business of BASF develops, produces, and markets a range of high-quality resins, additives, colorants, and polymer dispersions worldwide. These raw materials are used in formulations for coatings and paints, printing and packaging products, construction coatings, adhesives, cellulosics and composites, and paper manufacturing. With a comprehensive product portfolio and extensive knowledge of the industries we serve, our customers benefit from innovative and sustainable solutions to help them advance their formulations through chemistry. For further information about the Dispersions & Resins business in North America, please visit http://www.basf.us/dpsolutions.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The more than 115,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of more than €60 billion in 2017. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (BAS). Further information at www.basf.com.

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