# HIGH-PERFORMANCE RESINS FOR CONCRETE COATINGS

Innovative
Acrylic Polymers
for Concrete
Applications



## INNOVATIVE ACRYLIC POLYMERS FOR CONCRETE APPLICATIONS

Concrete is the most frequently used structural material in the world. Although concrete has existed for thousands of years, the coating and resin technologies surrounding it are continuously evolving. Engineered Polymer Solutions (EPS) delivers resin solutions to protect, preserve and enhance concrete.



#### **CONCRETE SEALERS AND STAINS**

Concrete sealers must provide both aesthetic and protective attributes. A high-performance binder is critical for this application because concrete sealers contain little pigment or additives. EPS® 2257, EPS 2293®, EPS® 2526 and EPS® 2533 are innovative acrylic emulsions ideal for cementitious substrates.

**EPS® 2257** is an all-acrylic emulsion that offers excellent penetration, adhesion and water resistance on cementitious substrates.

- Good blush and water resistance
- Exceptional hardness at low VOC (50 to 100 g/L)
- Excellent UV and yellowing resistance

**EPS® 2293** is a self-crosslinking all-acrylic emulsion that provides excellent adhesion and early water resistance for use in clear sealers over tiles and cementitious substrates. EPS 2293 also offers outstanding performance in exterior stain formulations for deck and wood applications. Clear coatings can be formulated at less than 100 g/L VOC. Additionally, it can be formulated into low VOC (less than 100 g/L) for garage floor coatings.

- Exceptional early water resistance – resists blushing, whitening or blistering
- Great wet and dry adhesion to wood, tiles, glass, and cementitious substrates
- Chemical and abrasion resistant
- Superb exterior durability and performance as a wood stain



**EPS® 2526** is a styrenated acrylic emulsion that offers excellent hardness and wet/dry film clarity, and is well-suited for use in clear and pigmented finishes on cementitious substrates.

- Excellent hardness and block resistance
- Exceptional film clarity and blush resistance
- Good chemical and hot tire resistance

**EPS® 2533** is an acrylic emulsion offering outstanding ink and tannin blocking characteristics, adhesion, and early water resistance. EPS 2533 provides paint formulators with a waterborne alternative to solvent-based primers and is ideal for use as a universal primer or low gloss topcoat on ferrous and non-ferrous metal, cementitious, wood and plastic substrates.

- Outstanding tannin stain block
- Exceptional corrosion resistance
- Broad adhesion

- Excellent water-based and solvent-based ink marker stain block
- Early water resistance and exterior durability

#### **CURE AND SEAL**

Cure and seal technology functions as a barrier coating locking in water to allow for optimal cure. EPS® 2272, EPS® 7501, EPS® 7506 and EPS® 7725 are suitable for a variety of concrete cure and seal applications.

**EPS® 2272** is an acrylic emulsion that offers excellent water retention properties. EPS 2272 can be formulated to meet the requirements of ASTM C309 and ASTM C1315, Type I, Class C cure and seal membranes. Low VOC formulations can be produced at < 100 g/I VOC using a coalescent that meets stringent VOC regulations, such as EPS® 9147.

- Excellent water retention properties
- Good blush resistance
- ASTM C1315 Type I Class A, nonyellowing can be achieved with a suitable UV additive package

#### SOLVENT-BORNE CURE AND SEAL RESINS

EPS® 7501 is a modified solution acrylic resin that can be easily formulated with a variety of economical solvents for concrete cure and seal applications. When properly formulated to 25% solids, EPS 7501 meets the requirements of ASTM C1315, Type I, Class C.

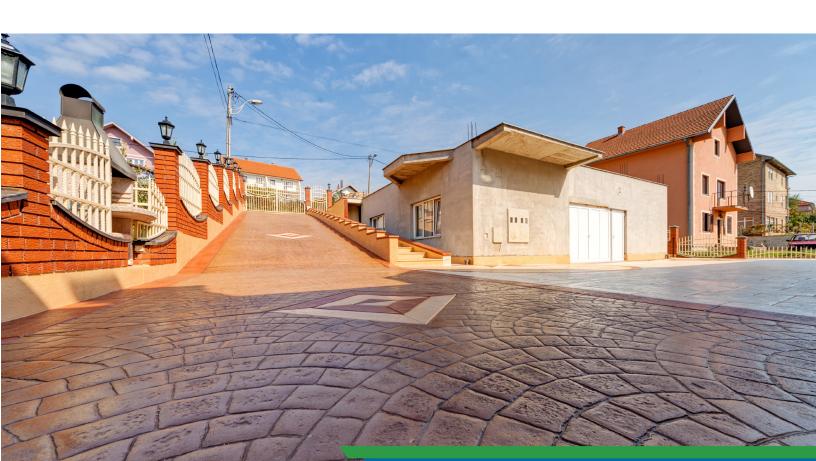
- Higher solids and lower viscosity
- Exceptional water resistance
- Good wear properties
- Excellent low-temperature spray characteristics
- · Great water retention properties

EPS® 7506 is a solution acrylic resin in an aromatic naphtha and tertiary-butyl acetate (TBAC) blend. It can be further formulated with exempt solvents for concrete cure and seal applications at a lower VOC. Using a blend of TBAC and Aromatic 150, formulations can be obtained at <350 g/l.

- · High gloss
- Can be formulated to meet requirements for ASTM
   Excellent water retention properties C1315, Type I, Class C Cure & Seal coatings
- Exceptional water resistance

EPS® 7725 is a solution acrylic resin that can be easily formulated with a variety of solvents for concrete cure and seal applications.

- High gloss
- Formulated to meet requirements for ASTM C1315. Type I, Class C Cure & Seal coatings
- Exceptional water resistance
- Excellent water retention properties





#### **ADMIXTURE**

When acrylic polymers are added to concrete, the compressive strength, flexural strength and tensile properties are enhanced. EPS® 2708 is a versatile solution developed for admixtures that are added to concrete.

**EPS® 2708** is an all-acrylic emulsion designed for high alkaline applications. It can be used as a polymer admixture for cement-based products or as a binder for coatings and primers over cementitious substrates.

- · High alkali stability
- Exceeds bond strength requirements per ASTM C1059-91
- Improves flexural strength and modulus of elasticity per ASTM C580
- Reduces permeability of cement matrices

#### **COLORANTS**

High-quality colorants are crucial because they provide color consistency, ensuring the right color every time for customers. NovoColor® is available in several different technologies to provide optimum compatibility with a wide variety of concrete coating systems.

NovoColor® HP II is formulated and manufactured for in-store tinting and volumetric in-plant tinting of water-based coating systems. This colorant system allows for precise color control for custom colors and stock colors. NovoColor HP II is UL GreenGuard Gold certified for low chemical emissions.

**NovoColor**<sup>®</sup> **IP** offers a wider choice of pigments and higher pigment content, making this

colorant system a more versatile and economical choice for in-plant tinting of concrete coatings. NovoColor IP is compatible with a wide range of water-based coating systems.

**NovoColor® SF** is the newest colorant line from CCA, consisting of transparent and durable colorants designed to provide unique and long-lasting enhancements to the look of waterborne coatings.

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### **Unmatched Technical Insight Into Coatings**

EPS provides performance-based resins and colorants specifically designed for the architectural, industrial, construction, and adhesive industries. With a personalized approach, innovative technology, consistent product performance and exceptional technical service – we make doing business with us easy.

Our R&D experts create the products of the future, supporting new opportunities for customers. The proprietary technology in our polymers enables our customers to develop coatings with essential features – including

excellent adhesion to multiple substrates, as well as abrasion, block, and early water resistance. As a global manufacturer of CCA colorants to the consumer paints and industrial coatings industries, we offer a broad colorant technology portfolio for both POS and in-plant OEM clients.

We are committed to understanding our customers' needs and helping them succeed. Formulate all of your architectural, industrial, construction, and adhesive products with the wide range of acrylic emulsions, conventional resins, and colorants supplied by EPS.

Business made easy, science made simple. To learn more, visit epscca.com