

TECHNICAL DATA SHEET RESIN8™



RESIN8 is a low-carbon hybrid mineral-polymer, boasting an impressive 90% composition of recycled and reused materials. Its lightweight and versatile nature makes it an ideal high performing aggregate or additive, for use in structural and non-structural concrete applications, as well as asphalt.

TECHNICAL PROPERTIES¹

- Maximum nominal size 6.35 mm (ASTM C136)²
- Dry bulk unitary weight 400-500 kg/m³ (ASTM C29)
- Specific gravity 1.09 (ASTM C128)
- Absorption 14.5% (ASTM C128)
- Material finer than mesh #200 < 3.0% (ASTM C117)
- Clay lumps and friable particles < 3.0% (ASTM C142)
- Organic contamination None (ASTM C40)
- Color: gray and black particles
- Morphology: high porous rounded particles with good bonding properties
- Gradation: (typical particle size distribution)



Increases fire resistance



Meets mechanical properties requirements



Improves thermal values



Reduces carbon footprint

SIEVE SIZE mm (in)	% PASSING LOWER LIMIT	% PASSING HIGHER LIMIT
6.35 (1/4")	100	100
4.75 (#4)	95	100
2.38 (#8)	50	70
1.19 (#16)	20	40
0.60 (#30)	5	15
0.30 (#50)	0	5
0.15 (#100)	0	2
0.075 (#200)	0	1

¹ Average physical properties | ² Different sizes available upon request



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RESIN8™

USES AND APPLICATIONS

CONCRETE AND MORTAR APPLICATIONS

Ideal for use in a wide array of concrete applications, including masonry blocks, pipes, pavers, prefabricated tiles, columns, decorative features, curbs, channels, ready-mixed concrete, lightweight concrete, and dry bagged concrete, as well as various types of mortar applications like bagged dry mortars, finishing mortars, and premixed mortars, among others.

Advantages

- Reduced weight
- Retention of mechanical properties
- Enhanced thermal insulation
- Meets or exceeds fire resistance and strength requirements
- Preservation of aesthetic appeal
- No alteration in color or texture
- Supports sustainable and eco-friendly construction practices

Dosage recommendation

Dry applications: typical dosage 5% by volume

Wet applications: typical dosage 3% by volume

As percentage of substitution by total volume of aggregates and substituted in fine aggregate. Higher substitution percentages can be used as long as there is validation at the laboratory testing level. It is suggested to carry out laboratory tests to verify accomplishment with technical specifications of the final product. For technical advice please contact the technical support center through your sales representative or authorized distributor.

ASPHALT APPLICATIONS

Recommended for use in hot mix asphalt applications (HMA).

Advantages

- Increases Marshall stability
- Improves viscosity properties
- Keeps the Marshall flow
- Does not increase air voids
- Prolongs temperature during the laydown and compaction operations
- Requires no special equipment for incorporation
- Maintains aggregate gradation within recommended dosage ranges
- Improves workability
- Increases stiffness (dynamic module)
- Reduces permanent deformation and fatigue
- Prolongs pavement lifespan

Dosage recommendation

An addition of 3% is recommended based on the total volume of aggregates (about 0.9% by total weight of mix). Higher addition percentages can be used as long as there is validation at the laboratory testing level. It is suggested to carry out laboratory tests to verify compliance with technical specifications of the final product. For technical advice please contact the technical support center through your sales representative or authorized distributor.