Horse HM-120L

High Performance Crack Injection Adhesive

Description	HM-120L crack injection adhesive is a two components modified epoxy resin adhesive with low viscosity and high penetrating property, used for repairing cracks in concrete,masonry and wood. It has loose ratio, less heat release, long application period and simple perfusion process.
Application Range	■ Structural crack repairs. ■ Widely used in the crack grouting repair of concrete bridges, houses, water conservancy, roads and other projects. ■ Repair of concrete internal honeycomb, loose and other defects. ■ Anti-corrosion construction of glass steel, structural surface coat. ■ Crack glue injection of concrete structure and brick structure, to repair cracks and reinforce the structure.
Product Characteristics	■ Excellent performance, very strong penetration ■ Low viscosity, easy to operate, high efficiency ■ Aging resistance ■ Good water resistance ■ Acid & alkali resistance ■ Contain no volatile, no shrinking after curing ■ Excellent toughness and impact resistance properties after curing ■ Nontoxic, non irritating odor, environment friendly.

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Product Advantages	■ Low density, close to water, can save at least 10% usage. ■ Low viscosity, good flowing, good penetration, no shrinkage, can quickly and fully infiltrate the crack. ■ Long operate time makes it suitable for deep and fine crack injection. ■ High bonding strength, good elongation, stable long-term performance. ■ Low moisture sensitivity, high bonding strength for both dry and humid applications. ■ HM-120L has passed Safety reports, Non toxic test, Horizontal flame test, Non ethanediamine test, Acute oral toxicity test etc. In total 32 types of test and 210 indexs.
Package	Bucket packaging A group: 15kg/barrels; B group:5kg/barrels
Shelf Life	When stored correctly, the shelf life will be at least 12 months from the date of manufacture.
Storage Conditions	Seal and store in dry and clean warehouse of ambient temperature -5℃-40℃.Do not store in the open air or rain. Do not damage the package. A part and B part should be stored separately to avoid mixing.

Technical Parameters

Physical Parameters

Appearance A Part (Epoxy)	Milky white liquid
Appearance B Part (Hardener)	Milky white liquid
Initial Viscosity After Mixing	≤300 mpa·s
Density after curing	1.1±0.1 g/cm³

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Mixture ratio (weight ratio)		3:1
Applicable period(min)	**Spring and Autumn use (23℃)**	≥40
	Summer use (30℃)	≥30
	Winter use (10℃)	40~180

Performance Parameters

Colloidal performance	**Tensile strength**	≥25Mpa
	Modulus of elasticity	≥1.5×103Mpa
	Elongation	≥1.7%
	Bending strength	≥30Mpa
	Compressive strength	≥50Mpa
	Unconstrained linear shrinkage rate	≤0.3%
Adhesion performance	**Steel-steel tensile anti-shear strength**	≥15Mpa
	Steel to steel butt tensile strength	≥20Mpa
	Tensile bonding strength of steel to dry-state concrete	≥2.5, Concrete cohesion Failure
	Tensile bonding strength of steel to wet-state concrete	≥1.8, Concrete cohesion Failure

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The Detailed Construction Process of HM-120L Crack Injection Adhesive

	**1.Crack Surface Prepare** Chip away plastering layer of the 10 centimeters range on both sides of the cracks
	**2.Slot Cracks** slot along cracks accroding to the design, then polish and clean it up.
	**3. Seal Ports** Seal cracks and ports with structural repairing adhesive. Keep ports distance 10-30 centimeters.
	**4. Air Pressure Test** When the structural repairing adheisve has cured, begin the air pressure test. If there is leakage, seal it or reinstall ports.
	**5. Mix Adheisve** Mix the crack injection adhesive according to the ratio. Stir evenly and avoid any bubble.
	**6. Inject Adhesive** Inhale the adheisve with adhesive injector and inject adhesive via ports one by one. Start the second injector when adhesive appears on this port. Inject from low to high level and from one side to another. When crack injection adhesive has innitial cured, remove injectors and ports. Level the surface with structural repairing adhesive.
	**7. Inspect Quality** Take quality inspection after seven days.

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Points for Attention	■ Use within the applicable period ■ Seal the package if any remaining glue, do not expose the glue to the air ■ Temperature will influence the curing High temperature will increase the curing speed. Low temperature will lead to longer curing time. ■ Construction personnel should take the necessary safety protection measures (such as wearing masks, gloves, goggles, etc.) ■ Pay attention to fire and maintain good ventilation on site ■ If stained on skin or clothing, clean it with acetone and rinse with a large amount of water immediately ■ If swallowed or splashed into eyes by accident, please seek medical help immediately
Transportation	This product is not flammable, explosive or toxic. It belongs to non-dangerous goods, transport as a general chemical building material. Do not damage the package or expose to sunshine or rain. Do not incline or invert the goods during transpotation.

For more information, please visit our website at www.horseen.com

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