

ZNR™ LAMINATE EP

Solvent-free, Epoxy-Based Lamination Resin

Product Description	Solvent-free, epoxy-based, humidity-tolerant, two-component epoxy lamination resin. Mixing viscosity enables very easy application on both horizontal and vertical surfaces.																																			
Product Number	412																																			
Areas of Application	<ul style="list-style-type: none">• For reinforcing concrete and wood columns and beams.• Possible to use even on humid surfaces and environments.• As binder for leveling mortars and mortar alums,• For attaching and lamination of carbon fibers on concrete and wood columns/beams.																																			
Characteristics /Advantages	<ul style="list-style-type: none">• Can be conveniently used indoors because it does not contain solvent and active materials.• Improves impact resistance and chemical resistance of the applied surface.• High adhesion strength.• Easy and fast to use.• Economic.																																			
Technical Data	<table><tr><td>Package</td><td colspan="2">A : 6,50 kg, B : 3,5 kg (10 kg sets)</td></tr><tr><td>Appearance</td><td colspan="2">Yellowish</td></tr><tr><td>Density</td><td colspan="2">~1.00 gr/cm³ (at 23 °C)</td></tr><tr><td>Viscosity</td><td colspan="2">100 – 130 KU</td></tr><tr><td>Application temperature</td><td colspan="2">+10°C / +35 °C</td></tr><tr><td>Full-Dry Time</td><td colspan="2">Waiting time for proceeding with coating is minimum 4 hours and maximum 24 hours. Curing time extends at low temperatures and environments with high humidity.</td></tr><tr><td>Pot life</td><td colspan="2">~40 minutes</td></tr><tr><td>Full-Dry Time</td><td>Touching</td><td>: 7 hours</td></tr><tr><td></td><td>Full hardening time</td><td>: 7 days</td></tr><tr><td>Consumption</td><td colspan="2">Varies depending on the weight of carbon leaf. ZNR LAMINATE EP consumption will be equal to the weight of fiber.</td></tr><tr><td>Storage</td><td colspan="2">Shelf life is 12 months. Products should be stacked in a cool and dry place.</td></tr></table>			Package	A : 6,50 kg, B : 3,5 kg (10 kg sets)		Appearance	Yellowish		Density	~1.00 gr/cm³ (at 23 °C)		Viscosity	100 – 130 KU		Application temperature	+10°C / +35 °C		Full-Dry Time	Waiting time for proceeding with coating is minimum 4 hours and maximum 24 hours. Curing time extends at low temperatures and environments with high humidity.		Pot life	~40 minutes		Full-Dry Time	Touching	: 7 hours		Full hardening time	: 7 days	Consumption	Varies depending on the weight of carbon leaf. ZNR LAMINATE EP consumption will be equal to the weight of fiber.		Storage	Shelf life is 12 months. Products should be stacked in a cool and dry place.	
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Surface Preparation	The concrete and wood column and beams where application will be made should be cleaned from loose parts, grease and other chemicals and should be clean. Application surfaces should be impregnated with solvent-free, humidity-tolerant or non-tolerant epoxy impregnated primer with 0.100 – 0.150 kg/m² consumption. Epoxy injection and/or repair with epoxy repair materials should be completed in advance.																																			
Preparation Instructions	Stir component A at first. Pour Component B (small can) hardener into Component A (large can) and mix all for three minutes with a suitable mixer until homogeneous mixture is achieved.																																			
Application	Apply the stirred mixture onto the surfaces of the concrete elements, of which epoxy injection, epoxy based repairs and epoxy impregnated primer applications are completed in advance, with a roller or brush. Following this procedure, apply ZNR LAMINATE EP on the concrete elements of which epoxy injection and/or repair with epoxy repair materials are completed. Cover the applied ZNR LAMINATE EP with carbon fiber and laminate with lamination roll and then paste.																																			
Considerations	<ul style="list-style-type: none">• Concrete surface must be solid and have adequate compressive strength (minimum 25N/mm²).• After about 40 minutes upon mixing, irreversible gelling will start. This can not be distinguished visually.• Never use the material that is not used within usage period.																																			
General Matters	Abovementioned product data and descriptions are prepared for guiding purposes as a result of our experiences and diligent studies. We, individually, can not control or affect the variety of the related materials and various construction and working conditions. Warranty is limited to only quality of the purchased material for the applications that are not under our control. No warranty is committed for application, but only for product manufacturing. This technical flyer overrides former flyers. Quality of the work may vary depending on how professionally																																			

	the product is used. In case of hesitation, please perform a small test or ask for technical help.
Disposal	Empty packings can be disposed to collection bins according to regional/local regulations or recycling rules. Dispose used waste materials as construction waste materials after drying and hardening. It is dangerous to dispose by burning the product remnants.
Safety Information	Keep the products out of reach of children. Keep the lids of the products closed. It is recommended to use gloves and goggles during application. In case of contact with skin, wash immediately with soap. In case of contact with eyes, immediately consult a doctor. For more information, please refer to the material safety data sheet.