ZNR™ POLYUREA WP
Polyurea Based, Elastic Water Insulation

Product Description	Polyurea-based, two-component super elastic water insulation material that is resistant against UV rays and weather conditions, has very high mechanical resistance and can be applied with brush-roller or by spraying.
Product Number	115
Areas of Application	• For coating of moving grounds, • Bridges, highways, viaducts, • Tunnels, metros, underground passages, • Roofs and terraces, • Stairs, stadiums, tribunes, • Multistorey buildings, • Car parks, • All industrial structures, • Humid structures, • Elevator shafts, • Basements and shelters, • Swimming pools, • Water reservoirs, • Treatment facilities, • Water channels, • Internal coating of bodyworks, • Internal and external coatings of boilers,
Characteristics /Advantages	• Perfect adherence capability. • Resistant against all weather conditions, ozone and UV rays and high energy loaded radiation. • Permanently covers cracks by bridging. • Thanks to its homogenous form, the product creates a single-part complete surface without any joints or weak points with perfect adhesion to the application area. • Resistant against salt solutions and acid and base solutions that are not diluted oxidizing up to +40ºC to a great extent. • Surfaces coated with Polyurea Wp feature perfect resistance against concrete tensile and strain. • Reduces noise thanks to its moisture absorption feature. • Protects the applied area against plant roots and resistant against microorganisms. Prevents settlement of them on the surface. • Although Polyurea WP is water impermeable, it has the capability to breathe and, thus, throws the humidity on the ground out by means of evaporation.

Mechanical / Physical Properties

Color	Black
Package	(A : 7.60 B : 2.40) 10 kg sets
Density	~ 1.2 gr/cm³ (at 23 ˚C)
Tensile strength	12 N / mm² (at 23 ˚C)
Percent extension	% 450 (at 23 ˚C)
Tear propagation resistance	12 N / mm² (at 23 ˚C)
Service temperature	-40 to 80 ˚C
Consumption	~ 1.2 kg/m² for 1mm of thickness

Curing Details

Humidity Percentage/Temperature		Pedestrian Traffic	Light Traffic	Full Curing
N.O. 60%	+10°C	16 hours	3 days	10 days
N.O. 60%	+20°C	13 hours	2 days	7 days
N.O. 60%	+30°C	10 hours	1 days	5 days

Chemical Durability

Durable against: Gas, Beer, Cyclohexene, Diesel Oil, Ethanol 10%, Ethylene glycol, Glycerin, Milk, Sodium Chloride Solution 3-30% Sodium Hydroxide 10%, Olive Oil, Paraffin, Petroleum, Castor Oil, Silicone Oil, Turpentine, Water and Soap.

Partially durable against: Butanol, Ethanol, Methylisobutylketone, Perchlorethylene and Xylene.

*Color change may be observed due to effects of chemicals. This study was held at room temperature. High temperature values and/or mix of chemicals may affect chemical durability.

Surface Quality	Concrete sub-surfaces must be solid and have adequate compressive strength (minimum 25N/mm²) and tensile strength must be minimum 1.5 N/mm². Clean foreign materials such as dirt, oil, grease, coating, surface curing agents, etc. from the base surface. The surface should be clean and dry.
Surface Preparation	Concrete sub-surfaces should be prepared in a way to obtain an open porous surface using abrasive equipment as a result of removing the cement. Remove poor concrete and completely open birds-eye spaces and holes. Sub-surface repairs, filling birds-eye holes/pits and leveling the surface should be performed with mix of 0.02-0.2 mm quartz sand and suitable ZNR **Primer** group products. Concrete or alum surfaces should be undercoated or leveled in a way to obtain a smooth surface. All dirt and loose parts should be removed from the surface using preferably brush and/or vacuum cleaner before the application of the product.
Application Conditions and Limitations	Surface moisture content: moisture content <4 % unit by weight. Test management : CM measurement or oven dry method According to ASTM, it should be rising humidity free (Polyethylene cover test) Relative air humidity should be maximum 80%. Dew point. Pay attention to condensation! In order to reduce the risk of condensation or bubble occurrence on ground topping, temperature of the surface and non-cured ground should be minimum 3°C above the dew point. Surface Temperature Minimum +10°C, Maximum + 30°C Ambient Temperature Minimum +10°C, Maximum + 30°C Material Temperature Minimum +10°C, Maximum + 30°C
Mixing Tools / Mixture	ZNR **POLYUREA WP** should be thoroughly mixed using a low speed (300 - 400 cycles/min) electric mixer or another suitable equipment. Stir Component B mechanically before mixing. After adding Component B into Component A completely, mix for 2 minutes continuously until a homogenous mixture is obtained.
Shelf Life	Shelf life is six months from the date of manufacture if stored properly at a temperature between +5°C and +30°C and away from direct sunlight.
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.