

ZNR™ PUSO 650 XH

Aliphatic Polyurethane-Based UV-Resistant Protective Finish Coat

Product Description	A two-component, aliphatic polyurethane-based protective finish coating with low solvent content, designed to provide long-lasting protection against ultraviolet (UV) radiation, weathering, and environmental exposure. The product forms a durable, abrasion-resistant, and chemically resistant surface with excellent color stability, gloss retention, and resistance to yellowing. Thanks to its aliphatic polyurethane technology, it maintains its aesthetic appearance and protective properties even under prolonged exposure to sunlight and harsh outdoor conditions. Suitable for use as a protective topcoat over polyurethane, epoxy, and compatible coating systems on both interior and exterior surfaces where high durability, UV resistance, and decorative performance are required.	
Product Number	417	
Areas of Application	• Protective coating for interior and exterior applications, providing excellent adhesion to substrates such as concrete, asphalt, galvanized steel, carbon steel, metal sheets, and other construction materials. • Protective finish coat for polyurethane and epoxy coating systems used in industrial and commercial environments. • Recommended for refineries, petrochemical plants, fuel storage facilities, and process equipment exposed to aggressive environmental conditions. • Suitable for fuel storage tanks, containment areas, and industrial infrastructure requiring long-term weather resistance. • Used for the protection of port facilities, offshore structures, marine equipment, and vessels exposed to marine environments. • Ideal for bridges, pipelines, steel structures, and industrial facilities requiring high UV and corrosion resistance. • Suitable for high industrial chimneys, stacks, and structures exposed to severe atmospheric conditions. • Recommended for containers, storage units, and transportation equipment requiring durable and weather-resistant protection. • Suitable for both new construction and maintenance applications where long-term UV stability, color retention, and environmental resistance are required.	
Characteristics /Advantages	• Excellent adhesion to epoxy, polyurethane, concrete, asphalt, steel, galvanized steel, and other common construction substrates. • Easy to mix and apply using a brush, roller, or airless spray equipment. • Outstanding resistance to ultraviolet (UV) radiation, preventing discoloration, chalking, and premature aging. • Excellent thermal stability and weather resistance under varying climatic conditions. • High resistance to abrasion, mechanical wear, and impact. • Suitable for application on both horizontal and vertical surfaces. • Provides long-term protection against atmospheric exposure and environmental deterioration. • Excellent color and gloss retention, even under prolonged outdoor exposure. • Durable protective finish for industrial, commercial, and infrastructure applications. • Low-solvent formulation with excellent application properties.	
Technical Data	Appearance	Liquid (white, grey and special desired colors)
	Density	~1.40 gr/cm ³ (at 23 °C)
	Viscosity	70 – 80 KU
	Application surface temperature	+5°C / +40°C
	Tack Free Time	~ 30 – 40 min

	Full-Dry Time	Opening for Pedestrian Traffic is 1 day and setting time end is 7 days.
	Pot life	~45 minutes
	Consumption	0.150-0.250 kg/m ² (for one layer) (variable, depending on surface conditions and usage purpose)
	Storage	Shelf life is ~ 12 months. Products should be stacked in a cool and dry place.
Durability	• Excellent adhesion to epoxy, polyurethane, concrete, asphalt, steel, galvanized steel, and other common construction substrates. • Easy to mix and apply using a brush, roller, or airless spray equipment. • Outstanding resistance to ultraviolet (UV) radiation, preventing discoloration, chalking, and premature aging. • Excellent thermal stability and weather resistance under varying climatic conditions. • High resistance to abrasion, mechanical wear, and impact. • Suitable for application on both horizontal and vertical surfaces. • Provides long-term protection against atmospheric exposure and environmental deterioration. • Excellent color and gloss retention, even under prolonged outdoor exposure. • Resistant to corrosion, industrial gases, detergents, disinfectants, mineral oils, fresh water, seawater, petroleum products, and various petroleum derivatives when used as a protective topcoat over epoxy coating systems. • Durable protective finish for industrial, commercial, marine, and infrastructure applications. • Low-solvent formulation with excellent application properties.	
Surface Preparation	For optimum performance, the substrate must be dry, sound, fully cured, capable of carrying the intended loads, and free from dust, dirt, oil, grease, laitance, curing compounds, and all contaminants that may impair adhesion. The surface should be mechanically prepared where necessary. Depending on the condition of the substrate, suitable preparation methods such as grinding, milling, shot blasting, or scarifying may be required to achieve a clean, sound, and properly profiled surface. All loose or weak material must be completely removed before application. Any surface defects should be repaired using appropriate repair materials prior to coating application. Proper surface preparation is essential to ensure maximum adhesion, durability, and long-term performance of the coating system.	
Package	(A: 17.700 + B: 2.800) 20 kg sets	
Preparation Instructions	Pour ZNR™ PUSO Component B (Hardener) completely into Component A (Base Resin) and mix thoroughly using a suitable low-speed mechanical mixer until a uniform color and homogeneous consistency are achieved. Mix for approximately 2–3 minutes, ensuring that all material from the sides and bottom of the container is incorporated into the mixture. Once the components have been mixed, the chemical curing reaction begins immediately. Due to the limited pot life of approximately 45 minutes, the mixed material should be applied without delay. Do not leave the mixture standing for extended periods, as irreversible gelling and viscosity increase will occur, making the product unsuitable for application. Mix only the quantity of material that can be applied within the available working time.	
Application	Apply the mixed ZNR™ PUSO 650 XH uniformly onto the prepared substrate using a roller, brush, or steel trowel, depending on the application requirements. During application, avoid excessive material accumulation, ponding, or uneven film thickness. Ensure a continuous and uniform coating layer over the entire surface. For multi-coat applications, allow each layer to cure for approximately 4–5 hours before applying the subsequent coat. The recoating interval may vary depending on ambient temperature, humidity, substrate conditions, and ventilation. For optimum intercoat adhesion, ensure that the previous coat is sufficiently cured but remains within the recommended recoating window.	

Considerations	• Protect the applied ZNR™ PUSO 650 XH coating from water, rain, condensation, and moisture exposure for at least 8 hours after application. • Do not apply the product when rain, condensation, or water exposure is expected before the coating has sufficiently cured. • Ensure adequate ventilation during application and curing, particularly in enclosed or poorly ventilated areas. • In confined spaces, appropriate respiratory protection equipment should be used in accordance with applicable occupational safety regulations. • Application and curing times may vary depending on ambient temperature, relative humidity, substrate conditions, and ventilation. • For optimum performance, comply with the recommended mixing ratios, application procedures, and recoating intervals.
General Matters	The information, technical data, recommendations, and application guidelines contained in this Technical Data Sheet are based on our current knowledge, laboratory testing, practical experience, and extensive studies. They are provided in good faith for guidance purposes only. As the quality of substrates, associated materials, site conditions, workmanship, and application methods are beyond our control, no warranty can be given regarding the final performance of the product in any specific application. Our liability is limited solely to the quality of the product supplied. No warranty, express or implied, is given with respect to application results, workmanship, or fitness for a particular purpose. This Technical Data Sheet supersedes all previous editions and replaces any previously published versions. The quality, durability, appearance, and performance of the completed work depend on proper substrate preparation, correct application procedures, environmental conditions, and workmanship. Users are responsible for determining the suitability of the product for their intended use and for carrying out any necessary preliminary testing. In cases of uncertainty, a trial application is recommended or technical assistance should be obtained from ZNR™ Technical Services before commencing full-scale application.
Disposal	Empty packaging should be disposed of through authorized collection or recycling facilities in accordance with applicable local and regional regulations and recycling requirements. Unused product residues and waste materials should be allowed to fully cure and harden before disposal. Hardened material may be disposed of as construction and demolition waste in compliance with local environmental regulations. Do not discharge liquid or uncured product residues into drains, sewers, waterways, groundwater, or soil. Do not burn product residues, packaging, or waste materials. Burning may release hazardous substances and may pose significant health, safety, and environmental risks.
Safety Information	Keep out of the reach of children. Keep containers tightly closed when not in use. Wear appropriate protective gloves, safety goggles, and protective clothing during handling and application. Avoid contact with skin and eyes. In case of skin contact, wash immediately with plenty of soap and water. In case of eye contact, rinse cautiously with clean water for several minutes and seek immediate medical attention. Do not ingest the product. Avoid inhalation of vapors, mists, or spray droplets. Ensure adequate ventilation during application and curing, particularly in enclosed areas. Remove contaminated clothing and wash before reuse. For detailed information regarding hazards, safe handling, storage, disposal, first-aid measures, and emergency procedures, please refer to the relevant Material Safety Data Sheet (MSDS) or Safety Data Sheet (SDS).