DENAS COLOR	**TECHNICAL SHEET**	ISO 9001 REGISTERED QUALITY SYSTEM · ISO 14001 REGISTERED EMS
Product name:	**DENAPUR Z**	Page: 1/2 Date: 26.11.2014

Characteristics:	Two-pack anticorrosion polyurethane paint.
Description:	Two-pack water-thinnable paint intended for anticorrosion priming of substrates in the metal industry. The paint contains an acrylic component containing functional hydroxyl groups as a binder, color anticorrosion pigments, extenders, coalescent agents, wetting and dispergation agents, anti-foaming agents, rheological modifiers and other ingredients. DENAPUR TUŽIDLO (hardening agent) contains a solution of aliphatic polyisocyanate in the glycol-ether-based solvent.
Composition (general):	Mixture on the basis of polyurethane dispersion
Application:	The priming anticorrosion coatings of steel, galvanized and aluminum structures for heavy-duty applications in the metal industry and mechanical engineering and for the coating of technological units in the chemical and food industries as well as in agriculture. The paint features a fast drying capacity, an increase in hardness and non-stickiness, as well as good mechanical, chemical and corrosion resistance.
Shades:	It is made in the color shades according to the RAL color chart or as agreed with the manufacturer.

Properties:	**Paint:**	Hardening agent:	Hardened mixture:
Density (g/cm^3):	1.4 – 1.7	1.12	1.4 – 1.5
Volume solids ONL (%):	48 - 58	77	55 - 60
Weight solids (%):	60-70	80	65 - 70
VOC (volatile organic compounds) (kg/kg):	0.02 - 0.05	0.3	0.05 – 0.09
0.006 TOC (total organic carbon content) (kg/kg):	0.01 - 0.04	0.16	0.03 – 0.08
Maximum permissible value of VOC content (g/l):	140		
Max. VOC content in the product in the ready-to-use condition (g/l):	135		
Water-thinnable paint category:	A/j multiple-pack reactive coatings with a special function for specific purposes.		
pH (at 20 °C)	7 - 9		
Appearance:	Liquid		
Gloss:	L60: 85-95		
Hardness:	5D min 35		
Adhesiveness:	degree 0 (cut edges are completely smooth and free of any defects)		
Viscosity:	KU=60 – 100 (sec) F4=60 – 25		
Miscibility:	Miscible with water.		
Drying time, degree 1 (dust-free):	1 hr		
Drying time, degree 2 (dry to touch):	1 hr 10 min		
Drying time, degree 4 (dry-through)	2 hr 50 min		
Chemical resistance:	resistant to - weak acids and bases, diesel, motor oil, hydrogen peroxide, xylene, butyl glycol, Savo		

Substrate preparation:	The substrate must be clean, free from any mechanical and greasy impurities, and residues of old paint incoherent with the substrate. Phosphate degreasing or substrate blasting are recommended.
Application conditions:	The air and substrate temperatures during the application and drying of the paint shall not fall below +15 °C. The open time of the hardened mixture is a max. of 1-2 hrs at 20 °C. If multiple coatings are required, the time lag between individual coatings should be at least 12 hrs, depending on the drying conditions.
Thinning:	Water
Hardening:	Prior to the application, DENAPUR Z should be mixed with the hardening agent in the specific mass ratio

*) - tested as a part of coating systems

	(100:20). The mixing ratios of both the components are specified by the manufacturer, depending on the type, application and customer requirements for final properties and paint resistance. The hardening ratio must always be discussed with the manufacturer. The hardening agent should always be added to the paint during continuous stirring. Use a suitable stirring device for mixing (e.g. a drill with a stirrer); must be thoroughly mixed. After through mixing of both the components, the mixture shall be put aside for min. 5 minutes and the consistency shall be adjusted by the adding of 5 to 15 parts of water, depending on the required viscosity. The manufacturer supplies the paint adapted to the application conditions and application technology.
Recommended method of application:	with a brush, a roller or by spray painting - air, pneumatic, high-pressure - Airless, Airmix
Recommended coating system:	Two-pack enamels DENAPOX E, EPOXIDEN E, DENAPUR or single-pack enamels DENATOP P, DENATOP S are recommended as topcoats.
Application data	The paint can be additionally dried at 50 - 80 °C. The open time of the hardened mixture is a max. of 2 hrs.
Spreading capacity and recommended thickness:	The theoretical spreading capacity is 8 - 9 kg/m^2 at the optimum thickness of 30 µm - 60 µm MF for two coatings. Wet layer thickness: 30 - 60 µm MF Dry layer thickness: 10 - 20 µm SF, for non-thinned varnish 15 µm SF, after thinning with 20 parts of water 10 µm SF
Packaging:	Plastic or metal containers weighing 0.8 - 200 kg.
Storage:	Store in original and well-closed containers in cool, dry and well-ventilated areas at a temperature from +5 to 25 °C. Protect from freezing. Keep the mixture separated from drinks, foodstuff, feedstuff and medicine. Store away from the reach of children. The shelf life is a minimum 36 months from the date of manufacture. The product must not freeze.
Disposal of packaging and waste:	Product residues and contaminated packaging shall be disposed of as hazardous waste in accordance with the applicable regulations.
Safety and hygiene:	Observe the principles of personal hygiene. Ensure good ventilation of the workplace. During application, wear respiratory protection. If on the skin, wash the affected areas with soap and water. If in the eyes: rinse with water. If swallowed, rinse mouth with water, do not induce vomiting. In case of health difficulties, seek medical attention.
Legislation, certificates, attestations, other tested parameters:	See the Declaration of Conformity

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