**TECHNICAL DATA SHEET** 



**INDUSTROL<sup>®</sup> UNIVERZAL S 2013** 

Enamel for metal and wood

Page number: 01

Composition	Dispersion of inorganic and organic pigments in alkyd-urethane resin solution in organic solvents.		
Characteristics and use	The product is characteristic with an excellent hiding power, high gloss and very good weathering resistance. It is manufactured in a wide range of both RAL and BAL shades and according to the individual customer demands. The product has a long-term storability, during which there are not occurring any changes in the painting matter properties. The product is not intended for coatings that come into direct contact with food, feed and drinking water and for coatings of children's furniture and toys. The product can be used on surfaces that come into indirect food contact.		
	<ul> <li>long-term weather resistance</li> <li>gloss stability</li> <li>alkyd-urethane binder</li> </ul>		
Application area	Environments: interior, exterior Examples: doors paints, do	porframes, wooden furniture and lining, wooden fences, eaves, window ons, garden furniture, carts, smaller industrial products, washable and	
Shades	1000 - white, 1010 – body-colour grey, 1100 – medium grey, 1110 – light grey, 1999 - black, 2320 – coffee brown, 2430 – chocolate brown, 2880 – chestnut brown, 4265 – body-colour blue, 4400 – light blue, 4550 – signal blue, 5014 – light body-colour green, 5080 – pea green, 5149 – light green, 5300 – medium green, 5400 – dark green, 5450 – khaki green, 5700 – green for wagons, 6003 - ivory, 6050 – cream light, 6201 – medium chromium yellow, 6400 – dark chromium yellow, 6600 – oak yellow, 6700 – light ochre, 7551 – signal yellow, 8140 – light cinnabar, 8191 – dark cinnabar, 8440 - russet, 9110 - aluminium. Another shades are available based on agreement between the customer and producer. The 9110 aluminium shade can only be applied with a brush and roller without aesthetic appeal.		
Physical properties	Flow time Weight solids Volume solids Flash point Density	130 – 180 s (cup Ford Ø 4 mm)         > 58 %         50 - 55 %         36 °C         1000 - 1250 kg/m <sup>3</sup>	
Emission limits	VOC: 0.24 – 0.29 kg/kg Product subcategory: A/d Max. VOC content in ready to u	TOC: 0.20 – 0.22 kg/kg Threshold value (2010): 300 g/l se state: 299 g/l	
Properties of dried coat	Gloss Pendulum hardness / Persoz Hiding power Liquid water permeability	degree 1 degree 3 (for shades 9109 and 9110)up 8 % in 5 days degree 1 - 2 shades brightly red and yellow - degree 3 $w3 - low (\leq 0,1 \text{ kg/(m}^2.h^{0.5}) \text{ (EN 1062-3)})$	
	Surface finish adhesion of buil structures to the base	ding 5,1 MPa (substrate concrete) (ČSN 73 2577)	
Drying time	Surface temperature Dust free Dry through Dry film thickness DFT	23 °C up to 10 hours up to 48 hours 30 - 40 µm	

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## Page number: 02

Spreading capacity	Wet film thickness WFT	60 - 80 µm	
	Dry film thickness DFT	30 - 40 µm	
	Theoretical spreading capacity	14 - 16 m <sup>2</sup> /l per one layer	
Thinning	S 6006 (brush, roller), S 6001 (spraying)		
Surface preparation	The timber surface must be clean, dry, well worn, moisture max. 12%, without rest of any resins. Concrete or masonry substrate must be dry, compact, clean, well-matured (usually 4-6 months) and insulated against ground (bottom) moisture. The metal substrate must be clean, dry, degreased, free of rust and dust, mechanically cleaned. Absorbent substrates must also be treated with a suitable impregnant and provided with a suitable base coat. Metal substrates must be provided with appropriate anticorrosive primer. Formerly coated surfaces must be cleaned, degreased and without old non-adhesive paints. It is recommended for providing compatibility of a new paint with the old one to perform a reference coating (painting) of surface - ca 1 m <sup>2</sup> . It is recommended to follow the procedure system according to the technical data sheet.		
Application conditions	dew point. Temperature and relative h surface temperature must not be high 23 °C. Relative humidity must not be h an application and a drying and high hardening of the coat. Imperfectly drie or with adhesion between individual co paint film. During rain, fog, creation of condensati content of dust the coating work must b treated material. Do not apply the paint on a hot summ drying of the surface layer film and the problems in connecting the individual se For larger compact areas always use guarantee the same shade of the color	the material from the same batch. Using the same batch can ur. c conditions (climatic conditions, thickness, number of coats, the	
Workflow	<ul> <li>PRAGOPRIMER EXTRA S 2035 o</li> <li>local bonding i.e. BKP Rapid, regrin</li> <li>1x PRAGOPRIMER STANDARE PRAGOPRIMER EXTRA S 2035 o</li> <li>grinding with a sandpaper No. 2800</li> <li>2 – 3x INDUSTROL UNIVERZAL S</li> </ul> <b>The coating of a wood:</b> <ol> <li>1x impregnate with LAZUROL CL 1033, drying for 24 hours</li> <li>1 - 2x PRAGOPRIMER PLUS S 20</li> </ol>	<ul> <li>D S 2000, FORMEX FOR GALVANIZED IRON S 2003, or PRAGOPRIMER PROFI S 2129; nd bonded area with a sandpaper;</li> <li>D S 2000, FORMEX FOR GALVANIZED IRON S 2003, or PRAGOPRIMER PROFI S 2129; -320 while wet;</li> <li>S 2013 enamel. Optimal thickness of a single layer is 30-35 μm.</li> <li>ASSIC S 1023 or LAZUROL FUNGICIDAL IMPREGNATION S 070 or LAZUROL OKNOBAL PRIMER S 2060 S 2013 enamel. Time interval between particular layers is at least</li> </ul>	
Application	Brush, roller, spraying		

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## Page number: 03

Handling	Read the instructions in the Safety Data Sheet before use and follow all safety instructions and regulations. The product contains organic solvents. Follow basic hygiene rules. Do not eat, drink or smoke while using this product. Avoid contact with eyes, skin or clothing. Wear protective gloves, eye protection, protective clothing. Ensure effective ventilation of the workplace. People and animals should not remain in the treated area until the paint dries. If on skin: take off contaminated clothing and wash skin with plenty of soap and water. If inhaled: remove person to fresh air. If in eyes: rinse thoroughly for 10-15 minutes with clean water. Remove immediately contact lenses if present. If swallowed: rinse your mouth with water. If you feel unwell or in case of health problems or if in doubt, and accidental ingestion and contact with eyes, always consult a doctor immediately.
Packing	0.375 l; 0.6 l; 0.75 l; 4 l; 9 l
Storability	The product keeps the product qualities 5 years from production date in original closed container. To store in dry storage at the temperature 5 to 25 °C. Flammable liquid II. hazard class.
Disposal of packing and waste	Hand over the used, properly empty packing at the collection point of the packing waste. Dispose the packing with the product rest at the place determined by the town for disposal of hazardous waste or hand over to the person authorized for hazardous waste disposal. Further see MSDS.

These data are only for information and their accuracy is influenced by the properties of individual materials and unpredictable factors during application. The user is responsible for correct use of the product according to the direction for use and for correct application of painting system, i.e. he must always evaluate all conditions of application, which could influence final quality of the top treatment. Therefore we always recommend to the user to carry out the test for actual working conditions and type of surface applied. Above mentioned data are data, which influence individual working conditions and therefore they do not establish a legal claim. It is necessary to consult information outside the terms of this catalogue sheet with the producer.

The producer stipulates the right for the change in the catalogue sheets without previous notification.

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