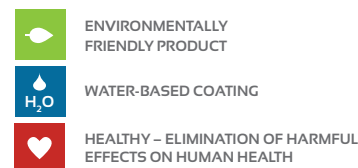


# Vulmkoriz-Pur BR



## Product description:

**Vulmkoriz-Pur BR** is a unary, air-cured polyurethane anti-corrosive coating pigmented with zinc phosphate. It cures to a highly resistant coating, which provides cathodic protection in the case of local mechanical damage. The product forms a permanently flexible, compact film insoluble in petroleum products and water. It resists the effects of  $\text{CH}_3\text{COOH}$  and methanol. It has excellent adhesion and colour stability.

## Use:

**Vulmkoriz-Pur BR** is a primer as well as topcoat for steel structures, bridges, pipe lines, etc. Excellent protective properties of the material are visible in contact with oil products (oil, black oil, etc.).

## Benefits:

- abrasion-resistant
- good chemical and mechanical resistance
- resistance to the effect of black oil and oil
- high inhibition of corrosion processes (category C3 (long durability) and C4 (medium durability))

## Test data:

Conformity Certificate	1301-CPD-0199
TSÚS 246/2004	STN ISO 12 944-6
	STN ISO 6270
	STN ISO 7253
	STN ISO 2409
	STN EN 64 0242

## Product data:

colour:	RAL, MIPA according to customer's choice
appearance:	matte, semi-gloss, glossy
shelf life:	12 months in original packaging in dry conditions at the temperature 10 – 35 °C

## Physical data:

solids content:	63 %
density:	1,32 g/ml

## Theoretical capacity:

5 – 7 m<sup>2</sup>/kg at a thickness of 60 – 80 µm

## Processing temperature:

minimum temperature of primer and air:	5 °C
maximum temperature of the substrate:	30 °C
ideal paint temperature:	17 – 23 °C

## Substrate:

Suitable primers are metal structures and bridges. The substrate must be coherent and sufficiently bearing, without dirt, grease and loose particles.

#### Instructions for use:

Apply the anchor coat of **Vulmkoriz-Pur BR** diluted with water on a dry or slightly damp substrate in a ratio of 1 kg : 0,15 l. After drying (approx. 4 hours) apply another coat, i.e. mix of the paint material and water in a ratio of 1 kg : 0.10 l. Drying time and dilution ratio for the next layers are the same. We recommend 2 – 3 layers in the thickness of 80, 160 and 240 µm.

#### Time data for application:

dry to touch:	approx. 2 hours
re-coating interval:	approx. 4 hours
cured:	approx. 24 hours
completely reacted:	5 days

at a relative air humidity of 50% and temperature of 23 °C

#### Cleaning of tools:

Immediately after use, with water.

#### Resistance:

- withstands high mechanical loads
- resistant to chemicals, solvents, detergents and cleaners, CH<sub>3</sub>COOH and methanol
- resists effects of black oil and oil
- resists water penetration
- excellent anti-corrosion properties (category C3 (long durability) and C4 (medium durability))
- frost resistant

#### Safety:

When handling **Vulmkoriz-Pur BR** proceed in accordance with the general safety measures, follow the safety instructions on the packaging labels and on safety data sheets. Data, specifications, directions and recommendations given in this technical data sheet are based on experience gained in modeling of supposed ways of applications, or under specially defined conditions. Their accuracy, completeness or appropriateness under the actual conditions of any intended use is not guaranteed and must be determined by the user. The manufacturer and distributor are not responsible for the results achieved, loss, direct or consequential damages arising from failure to comply with the recommended use of the product, which go beyond the conditions herein.

Name of the test, or the name of the tested characteristics and a number of a standard, or other identifier of the test method, procedure:

corrosion resistance	STN EN ISO 12944-6
corrosion test in the condensation chamber	STN EN ISO 6270
corrosion test in neutral salt spray	STN EN ISO 7253
adhesion	STN EN ISO 2409
chemical resistance	STN EN 64 0242

**Samples conditioning:**

Laboratory temperature 23 °C ± 2 °C.

**Used test device, its metrological traceability:**

corrosion chamber	Z 90 0006
device for producing a grid cut	-

**Deviations from the standardized test procedure and all circumstances that might affect the test result:**

none

**Results of measurement:**

**1. Vulmkoriz-Pur BR – double coating [MPa]**

**a) coating thickness [µm]**

Sample no. 1	207
Sample no. 2	216
Sample no. 3	215
Arithmetic mean	213
Measurement uncertainty	5,7

**b) Corrosion test in the condensation chamber 120 hours**

Sample no.	Blisters	Over-corrosion	Cracks	Spalling	Adhesion (grade)
1	without blisters	Ri. 0	0	0	0
2	without blisters	Ri. 0	0	0	0
3	without blisters	Ri. 0	0	0	0

**c) Corrosion test in neutral salt spray 240 hr.**

Sample no.	Blisters	Over-corrosion	Cracks	Spalling	Adhesion (grade)
1	without blisters	Ri. 0	0	0	0
2	without blisters	Ri. 0	0	0	0
3	without blisters	Ri. 0	0	0	0

The test results correspond to the level of atmospheric corrosion aggressivity according to STN EN ISO 12944-6 – **C3 medium**

**2. Vulmkoriz-Pur BR – triple coating [MPa]**
**a) coating thickness [µm]**

Sample no. 1	316
Sample no. 2	331
Sample no. 3	329
Arithmetic mean	325
Measurement uncertainty	9,4

**b) Corrosion test in the condensation chamber 240 hours**

Sample no.	Blisters	Over-corrosion	Cracks	Spalling	Adhesion (grade)
1	without blisters	Ri. 0	0	0	0
2	without blisters	Ri. 0	0	0	0
3	without blisters	Ri. 0	0	0	0

**c) Corrosion test in neutral salt spray 480 hr.**

Sample no.	Blisters	Over-corrosion	Cracks	Spalling	Adhesion (grade)
1	without blisters	Ri. 0	0	0	0
2	without blisters	Ri. 0	0	0	0
3	without blisters	Ri. 0	0	0	0

The test results correspond to the level of atmospheric corrosion aggressivity according to STN EN ISO 12944-6 – **C4 medium**

**3. Chemical resistance**

Sample no.	Petrol	Diesel	Engine oil
1	corrodes	etches	without disruption
2	corrodes	etches	without disruption
3	corrodes	etches	without disruption

Identified weaknesses:  
none

Results of measurement: (source – Test report no. 151/2005 and 152/2005, issued by Building Testing and Research Institute TSÚS)

Name of test: adhesion (STN EN ISO 2409)  
Resistance to chemical (STN EN 64 0242)

**1. Chemical resistance – methanol**

Sample no.	Blisters	Over-corrosion	Cracks	Spalling	Adhesion (grade)
1	without blisters	Ri. 0	0	0	0
2	without blisters	Ri. 0	0	0	0
3	without blisters	Ri. 0	0	0	0

Identified weaknesses:  
none

**Vulmkoriz-Pur BR**, technical data, issue 06/2013, page 4/5

VULM BIOTECHNOLOGY s.r.o., Tuhovská 18, 831 06 Bratislava  
info@vulmbiotech.com, www.vulmbiotech.com

2. Chemical resistance – CH<sub>3</sub>COOH

Sample no.	Blisters	Over-corrosion	Cracks	Spalling	Adhesion (grade)
1	without blisters	Ri. 0	0	0	0
2	without blisters	Ri. 0	0	0	0
3	without blisters	Ri. 0	0	0	0

Identified weaknesses:  
none