

## TECHNICAL DATA SHEET

<b>SYSTEM:</b> Polyol (component A): Isocyanate (component B): Application:	<b>ULTRAPOL RG 03/10</b> ULTRAPOL RG 03/10 ULTRAMER B Polyurethane system for manufacturing of thermal and acoustic insulation walls and ceilings on industrial and residential buildings by in-situ spray forming. Open-celled, semi-rigid foam.		
<b>PROPERTIES:</b>  viscosity at 25°C density at 25°C colour storage temperature storage time	comp. A (polyol) ULTRAPOL RG 03/10 comp. A  200 ± 100 1,10 ± 0,02 yellow 5 – 25 3	comp. B (iso) ULTRAMER B  200 ± 100 1,22 ± 0,02 brown 5 – 25 6	   [mPas] [g/cm <sup>3</sup> ]  [°C] [months]
<b>REACTIVITY IN LAB CONDITIONS</b> <small>(samples foamed by hand mixing with mechanical stirrer at the speed 2500 ±500 rpm )</small>	Samples weight (ratio A:B by weight) Components' temperatures Mixing time Start time Gel time Tack free time Core density	20 + 22 (100:110) 18 - 22 4 -5 5 ± 1 14 ± 3 18 ± 4 9 ± 2	[g] [°C] [sec] [sec] [sec] [sec] [kg/m <sup>3</sup> ]
<b>SUGGESTED PROCESSING CONDITIONS</b>	Mixing ratio A : B (by volume) Components temperature Machine heaters temperature Hoses temperature Ambient temperature Surface temperature Components pressure	100:100 25 - 35 45 - 55 45 - 55 10 – 35 10 – 40 80 – 100	  [°C] [°C] [°C] [°C] [°C] [°C] [bar]
<p><b>The polyol component should be thoroughly stirred before working because it has a tendency to separation during storage</b></p> <p>Sprayed surfaces should be dry, free from oil, dust and dirt that can cause deterioration of the adhesion of the foam. If in doubt about the cleanliness of the surface, it is a good thing to perform the trial spray on a limited area the day before, and if the adhesion is poor, wash and dry the surface before the final spraying.</p> <p>Before spraying adjacent areas should be protected to prevent from deposition of foam's dust.</p> <p>If the foam is exposed to direct sunlight it should be covered with a plasterboard barrier separating from the interior to ensure fire safety.</p>			

## PROPERTIES OF THE SPRAYED FOAM

Test samples cut from the sprayed insulation.

Foam core density (PN-EN 1602:1999):	8 – 12 kg/m <sup>3</sup>
Reaction to fire classification (PN-EN 13501-1+A1:2010):	E
Thermal conductivity (PN-EN 12667:2002):	$\lambda_{\text{mean},i} = 0,034 - 0,036 \text{ W/mK}$ $\lambda_{90,90} = 0,038 - 0,040 \text{ W/mK}$
Declared aged thermal conductivity for all thicknesses:	$\lambda_D = 0,039 \text{ W/mK}$
Short term water absorption by partial immersion (PN-EN 1609:2013)	< 0,3 kg/m <sup>2</sup>
Coefficient of water vapour diffusion resistance, $\mu$ (PN-EN 12086:2013)	> 3,6
Water vapour transmission, (PN-EN 12086:2013)	>0,14 mg/(m·h·Pa)
Dimensional stability at 70°C and 90% relative humidity after 48 hours, (PN-EN 1604:2013-07)	< 1%
Dimensional stability at –20°C after 48 hours, (PN-EN 1604:2013-07)	< 0,5%
Compressive strength at 10% deformation, $\sigma_{10}$ (PN-EN 826:1998)	> 10kPa
Content of closed cells (PN-ISO 4590:2005)	10 – 20 %
Emissions of volatile organic compounds (PN-EN ISO 16000-9: 2009, ISO 16000-6: 2011 PB LS-002/4/09-1999, PB LS-012/2/09-2004)- Meets the requirements of the national rules on the release of hazardous substances and can be used in rooms category A and B, designed to accommodate people.	

The information given in this technical data sheet bases on our laboratory tests and practical knowledge and cannot be use as warranty of purchaser/user final products' parameters. Our data does not release the user from the obligation to verify the information provided and test our product according to his own application, technological conditions and final purposes.  
This data sheet is distributed with the corresponding Safety Data Sheet which contains current information about classification, labeling, handling and safety relevant data.