

<b>Simplified Report No.: 13_01969-a</b>	Receipt date: May 23th of 2013
	Test end date: July 30th of 2013
	Report emission date: August 27th of 2013
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Client:	TECNOPOL SISTEMAS, S.L.
Contact person:	David Pont
Address:	Polígono Industrial "Z" – C/ de la Prensa, 5
Town:	08150 PARETS DEL VALLÈS (Barcelona)

REFERENCE	STANDARD	TITLE	SAMPLE	w kg/(m <sup>2</sup> .h <sup>0,5</sup> )	SPECIFICATION ACCORDING TO UNE-EN 1504-2:2005
Kit of polyurea: Primer: PRIMER PU-1050 Membrane: TECNOCOAT P-2049	UNE-EN 1062-3:2008	Determination of liquid water permeability	1	0.0038	w < 0,1 kg / m <sup>2</sup> · h <sup>0,5</sup>
			2	0.0045	
			3	0.0053	
			Average	0.0045	
			Standard deviation	7,55E-04	

REFERENCE	STANDARD	TITLE	SAMPLE	WEIGHT LOSS (mg)	SPECIFICATION ACCORDING TO UNE-EN 1504-2:2005
Kit of polyurea: Primer: PRIMER PU-1050 Membrane: TECNOCOAT P-2049	UNE-EN ISO 5470-1:1999	Determination of abrasion resistance	1	111	Weight loss < 3.000 mg
			2	121	
			3	166	
			Average	133	
			Standard deviation	29	

REFERENCE	STANDARD	TITLE	DROP HEIGHT (mm)	MASS (g)	SAMPLE	RESULT	SPECIFICATION ACCORDING TO UNE-EN 1504-2:2005
Kit of polyurea: Primer: PRIMER PU-1050 Membrane: TECNOCOAT P-2049	UNE-EN ISO 6272-1:2004	Falling-weight test	1000	1000	1	No cracking or no flaking, 20 Nm	After impact, no cracking or no flaking Class II: ≥ 10 Nm Class III: ≥ 20 Nm
					2		
					3		
			1000	2000	1	No cracking or no flaking, 20 Nm	
					2		
					3		

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REFERENCE	STANDARD	TITLE	PRODUCT	INITIAL SHORE D HARDNESS	FINAL SHORE D HARDNESS	SPECIFICATION ACCORDING TO UNE-EN 1504-2:2005
Kit of polyurea:  Primer: PRIMER PU-1050  Membrane: TECNOCOAT P-2049	UNE-EN 13529:2005	Resistance to severe chemical attack  (Class I: 3 days without pressure)	H <sub>2</sub> SO <sub>4</sub> 20%	53	50	The hardness decreased less than 50%, 24 hours after removal of the test liquid
			Motor oil		49	
			Salt 20%		53	
			Bleach		47 (yellowing)	
			NaOH 20%		51	
			Diesel		50 (slight yellowing)	

REFERENCE	STANDARD	TITLE	RESULT	SPECIFICATION ACCORDING TO UNE-EN 1504-2:2005
Kit of polyurea: Primer: PRIMER PU-1050  Membrane: TECNOCOAT P-2049	UNE-EN 1062-6:2003	Determination of carbon dioxide permeability	$i \text{ (g/m}^2\text{d)} = 1.276 \pm 0.323$ $S_D \text{ (m)} = 203 \pm 51$ $\mu = 160653 \pm 21644$	$S_D > 50 \text{ m}$

REFERENCE	STANDARD	TITLE	SAMPLE	TRANSMISSION RATE OF WATER VAPOUR V (g/m <sup>2</sup> x day)	AIR LAYER THICKNESS EQUIVALENT s <sub>D</sub> (m)	SPECIFICATION ACCORDING TO UNE-EN 1504-2:2005
Kit of polyurea:  Primer: PRIMER PU-1050  Membrane: TECNOCOAT P-2049	UNE-EN ISO 7783:2012	Determination of water-vapour transmission properties	1	8.11	2.52	Class I: s <sub>D</sub> < 5 m (water vapour permeable)
			2	21.42	0.95	
			3	14.02	1.46	
			Average	14.52	1.64	
			Standard deviation	6.67	0.80	

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REFERENCE	STANDARD	TITLE	SAMPLE	$\sigma$ (N/mm <sup>2</sup> )	TYPE OF BREAK	SPECIFICATION ACCORDING TO UNE-EN 1504-2:2005
Kit of polyurea:  Primer: PRIMER PU-1050  Membrane: TECNOCOAT P-2049	UNE-EN 1542:2000	Measurement of bond strength by pull-off	1	0.8	100% B/C	Rigid systems: $\geq 1.0$ (0.7) <sup>b</sup> N/mm <sup>2</sup> . (Without traffic loads) and : $\geq 2.0$ (1.5) <sup>b</sup> N/mm <sup>2</sup> (With traffic loads)
			2	1.1	100% B/C	
			3	0.8	100% B/C	
			Average	0.9		
			Standard deviation	0.2		Flexible systems: $\geq 0.8$ (0.5) <sup>b</sup> N/mm <sup>2</sup> (Without traffic loads) and $\geq 1.5(1.0)^b$ N/mm <sup>2</sup> (With traffic loads)

<sup>b</sup>: The value in parentheses is the smallest value accepted in any reading.

B/C: Adhesive failure between the first coat (primer) and the second layer (polyurea).

\* In case of a lawsuit, the original Spanish version shall be taken as reference.  
\* The results of this report concern only and exclusively to the material tested.  
\* The complete information related to the required tests is at client's disposal on request.  
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