

# SIMPLIFIED TEST CERTIFICATE

**No. 13/7316-1309-S**

Bellaterra, 17th December 2013			Product:			
<b>PARCHEM CONSTRUCTION SUPPLIES PTY LTD</b> 7 LUCCA ROAD WYONG NSW 2259 AUSTRALIA			<b>RENDEROC HB40</b>			
PRODUCTS AND SYSTEMS FOR THE PROTECTION AND REPAIR OF CONCRETE STRUCTURES ( PCC ); UNE-EN 1504-3:2006 Table 3: Requests of performances of products for the structural and non-structural reparation.						
Performance test	Result	Requirement				
		Structural		Non-structural		
		Class R4	Class R3	Class R2	Class R1	
Mixing water	<b>15%</b>	--	--	--	--	
1- Determination of compressive strength, UNE-EN 12190:1999	<b>38,0 N/mm<sup>2</sup></b>	≥45 MPa	≥25 MPa	≥15 MPa	≥10 MPa	
2- Chloride ion content, UNE-EN 1015-17:2000	<b>0,004%</b>	≤0,05 %		≤0,05 %		
3- Measurement of bond strength by pull-off, UNE-EN 1542:1999	Without primer	<b>1,8 MPa</b>	≥2,0 MPa	≥1,5 MPa	≥0,8 MPa	
	Nitobond Har Primer	<b>2,5 MPa</b>				
4- Determination of retraction and expansion, UNE-EN 12617-4:2002, Method controlled movements	<b>Shrinkage: 1,7 MPa Expansion: 1,7 MPa</b>	≥2,0 MPa	≥1,5 MPa	≥0,8 MPa	No requirement	
5- Determination of resistance to carbonation, UNE-EN 13295:2005	<b>Dk ≤ reference concrete MC(0,45)</b>	Dk ≤ reference concrete tipo MC(0,45)		No requirement		
6- Determination of the module of elasticity in compression, UNE-EN 13412:2008	<b>18,4 GPa</b>	≥20 GPa	≥15 GPa	No requirement		
7- Determination of resistance of capillary absorption, UNE-EN 13057:2002	<b>0,2 kg/(m<sup>2</sup> x h<sup>0,5</sup>)</b>	≤0,5 kg/(m <sup>2</sup> •h <sup>0,5</sup> )		≤0,5 kg/(m <sup>2</sup> •h <sup>0,5</sup> )	No requirement	
8- Determination of the coefficient of thermal expansion, UNE-EN 1770:1990	<b>13,7x10<sup>-6</sup> /°C</b>	Declared value				