

## **Flame Spread and Smoke Test** CAN/ULC S102-18

Flame spread zero

Smoke Developed 10 out of 450

## **Vapor Test** ASTM E96/E96M-16

Water Vapor Transmission - 375.78 g/day.m<sup>2</sup>

## **Salt Test** ASTM B117-18

No visible signs of damage - 0.5%

## **Combustibility Test** ULC S135:1992

Zero Flame spread, no particulates created

Thermal Cork Shield melts does not burn

## **Fungi Test** ASTM G21-2015

Vipeq Thermal Cork Shield received an average growth rating of zero, meaning there was **No Growth(0%)**



SUBJECT	STANDARD	RESULTS			
Classification in Accordance with UNE-EN 13501-5:2005	UNE EN 13501-5:2005	BROOF(t1)			
Thermal Conductivity	-	0.068±0.004 W/mK (a 27 °C)			
Classification In Accordance with Une-EN 13501-1:2007	UNEEN 13501 1:2007	B-s2,d0			
Difference in color after aging in accordance with UNE-EN ISO 4892-3:2006 (250 hours)	UNE-EN ISO 4892-3:2006	<b>Color</b>	<b>ΔE</b>		
		Red	1.91		
		Green	3.98		
Determination of liquid water permeability		Orange	5.54		
Determination of liquid water permeability	UNE-EN 1062-3:2008	0.12+0.01 kg/(m <sup>2</sup> h0.5)			
Determination of water vapor transmission properties	UNE-EN 1 2086:1998	0.01 rr.			
Laboratory measurement of sound absorption (in a reverberation room)	NP EN ISO 354	0.11 (500Hz)		0.14 (630 a 300Hz)	
Pull-Off Test for Adhesion	NP EN ISO 4624:2004	1 Mpa, 10% A/B, 90% B			
Determination of the mechanical resistance of different materials coated with Corkshield® after conditioning at -2° C	NP EN ISO 4624:2004	<b>Support</b>	<b>Pull-off Test before cycles - MPa</b>	<b>Pull-off Test after cycles-MPa</b>	<b>Variation</b>
		Concrete slab	0.45	0.84	85.00%
		EPS	0.25	0.52	108.70%
Determination of the mechanical resistance variation of concrete coated with Corkshield® after conditioning at (-4)°C	NP EN ISO 4624:2004	Pull-off Strength (Room Temp.) - MPa	Pull-off Test (after conditioning and curing at -2°C) - MPa	Pull-offTest (after conditioning and curing at -4°C) - MPa	
		0.45	0.84	0.78	
Determination of the mechanical resistance of different materials coated with Corkshield® after salt spray test	NP EN ISO 9227:2011 and NP EN ISO 624:2004	<b>Support</b>	<b>Pull-off Test before cycles-MPa</b>	<b>Pull-off Test after cycles - MPa</b>	<b>Variation</b>
		Concrete slab	0.45	0.7	53.2%
		EPS	0.25	0.57	132.0%
Determination of the mechanical resistance of different materials coated with Corkshield® exosure to filtered xenon-arc radiation	EN ISO 11341:2004 and NP ENISO 4624:2004	<b>Support</b>	<b>Pull-off Test before cycles - MPa</b>	<b>Pull-off Test after cycles - MPa</b>	<b>Variation</b>
		PVC	1.27	1.4	10.50%
		Concrete slab	0.45	1.18	158.60%
Determination of the specific heat of Corkshield® coating material		1.979 J/(g.K)			
Determination of slip resistance by means of the pendulum test	NPEN 14231:2006	<b>Support</b>	<b>Slip resistance value in wet conditions</b>	<b>Slip resistance value in dry conditions</b>	<b>Decrease</b>
		Concrete	84	55	34%
		EPS	89	55	39%
		Asbestos Cement	67	58	13%
		Wood	86	56	34%
		Zinc	85	55	35%
Determination of the mechanical resistance of different materials coated with Corkshield® submitted to hydrothermal cycles (heat-cold)	NPEN ISO 4624:2004	<b>Support Material</b>	<b>Pull-off Test before cycles-MPa</b>	<b>Pull-off Test after cycles - MPa</b>	<b>Variation</b>
		EPS	0.25	0.32	29.10%
		Concrete slab	0.45	0.78	71.60%
		PVC	1.27	1.51	18.90%
Analysis of the evolution of heat transfer through systems with and without coating with Corkshield®		<b>Specimen</b>		<b>Heat Transfer Resistance</b>	
		EPS+Zinco (with and without CorkShield®)+EPS		Higher with Corkshield®	
		EPS+MDF (with and without CorkShield®)+EPS		Higher with Corkshield®	
Determination of the mechanical resistance of different materials coated with Corkshield® exposed to condensation - water atmosphere	NPEN ISO4624:2004	<b>Support Material.</b>	<b>Pull-off Test before cycles - MPa</b>	<b>Pull-offTest after cycles - MPa</b>	<b>Variation</b>
		EPS	0.25	0.4	61.00%
		Concrete slab	0.45	0.49	7.90%
Test for External Fire Exposure in roofs. Test 1: Burning Torch Method, in Accordance with UNE-ENV1 187:2003	UNE-ENV 1187:2003	<b>External fire spread</b>		<b>Fire Penetration</b>	
		NO		NO	
Reaction To Fire Test in Accordance with UNEEN 13823:2002 and UNE EN ISO 11925-2:2002	UNEEN ISO11925-2:2002	<b>THP600 (MJ)</b>	<b>FIGRA 0.2MJ (W/s)</b>	<b>FIGRA 0.4MJ (W/s)</b>	<b>TSP 600S SMOGRA (m<sup>2</sup>)</b>
		1.72	110.71	78.44	30.69
		<b>LFS</b>	<b>DROP T ≤ 10s</b>	<b>DR0P T&gt;10s</b>	
		< to the edge	No	No	153.47
Measurement of Surface Temperatures and Heat Flow Under Radiation	UNE EN ISO 12543-4:1998	Fibre cement without coating		White Cork 14	White Cork18 Natural Cork 10
		<b>Exposed surface temperature CC)</b>	36.7	35.3	32.9 36.7
		<b>Unexposed surface temperature (°C)</b>	35.2	30.7	27.8 28.6
		<b>Heat flow (W/m*)</b>	237.4	123.3	99.0 166.2
		Fibre cement without coating		White Cork 14	White Cork18 Natural Cork 10
		<b>Exposed surface temperature CC)</b>	42.9	41.6	41.3 43.0
Measurement of Surface Temperatures and Heat Flow Under Radiation	UNE-EN ISO 12543-4:1998	<b>Unexposed surface temperature (°C)</b>	37.3	35.5	35.0 37.1
		<b>Heat flow (W/m*)</b>	122.2	64.4	65.8 100.1