CORKWALL

REINVENTING FINAL COATING TO PROTECT YOUR HOUSE AS CORK PROTECTS THE TREE

TECHNICAL DATA SHEET

DESCRIPTION
• Final coating layer for façades and interiors

CHARACTERISTICS
• **CORKWALL** is composed of a mixture of selected cork particles, with different types of water-based resins, mineral charges, stabilisers and various additives.

SPECIFICATIONS
• **Appearance:** doughy
• **Colour:** natural; white; a range of colours
• **Specific weight:** 0,5-0,7 g/cm^3
• **Fire classification/rating:** M1
• **Thermal conductivity** =0,058 W/m.K

APPLICATIONS
• **CORKWALL** adheres well to most common exterior building materials (mortar, metal, wood, PVC, expanded polystyrene, etc).
• It is intended for:
  · coating façades (providing thermal and acoustic insulation);
  · interior decoration

INSTRUCTIONS
• **CORKWALL** should be sprayed onto the wall, using appropriate machinery.
• Dry-to-touch: 30 minutes (20 °C room temperature).
• Total drying time: 12-24 hours (3-8mm layer)
• Performance: 1,4 -1,8 kg/m^2 (thickness variation)
• Application temperature: -2 °C to 45 °C

RECOMMENDATIONS
The substrate must be perfectly dry, resistant and hardened. The surface where **CORKWALL** will be applied must be thoroughly clean, without debris or detaching parts and well consolidated. Building pathologies must be treated accordingly before applying **CORKWALL**.

STORAGE
• **CORKWALL** cannot be directly exposed to sunlight or to temperatures above 45 °C or below -2 °C.
• Shelf life: 12 months

PRODUCT PRESENTATION
• 12 kg package

R/S PHRASES AND RISK SYMBOLS
• S2 keep out of the reach of children.
• S7 keep container tightly closed.

SUBJECT	STANDARD	RESULTS			
Fire classification in Accordance with UNE-EN 13501-5:2005	UNE-EN 13501-5:2005	Broof (t1)			
Thermal Conductivity	-	0,058±0,004 W/m.K (a 27 °C)			
Fire classification In Accordance with UNE-EN 13501-1:2007	UNE-EN 12667:2002	B-s2, d0			
Difference in colour after ageing in accordance with UNE-EN ISO 4892-3:2006 (250 hours)	UNE-EN ISO 4892-3:2006	**Color**	**ΔE**		
		Red	1,91		
		Green	3,98		
		Orange	5,54		
Determination of liquid water permeability	UNE-EN 1062-3:2008	0,12±0,01 kg/(m².h0,5)			
Determination of water vapor transmission properties	UNE-EN 1 2086:1998	0,01 m			
Laboratory measurement of sound absorption (in a reverberation room)	NP EN ISO 354	0,11 (500Hz)	0,14 (630 a 800Hz)		
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 CORKWALL after conditioning at -2 °C	NP EN ISO 4624:2004	**Suport**	**Pull-off Test before cycles - MPa**	**Pull-off Test after cycles - MPa**	**Variation**
		Concrete slab	0,45	0,84	85,0%
		EPS	0,25	0,52	108,7%
Determination of the mechanical resistance variation of concrete coated with CORKWALL after conditioning at (-4) °C	NP EN ISO 4624:2004	Pull-off Strenght (Room Temp.) - MPa	Pull-off Test (after conditioning and curing at -2 °C) - MPa	Pull-off Test (after conditioning and curing at -4 °C) - MPa	
		0,45	0,84	0,78	
Determination of the mechanical resistance of different materials coated with CORKWALL after salt spray test	NP EN ISO 9227:2011 and NP EN ISO 4624:2004	**Suport**	**Pull-off Test before cycles - MPa**	**Pull-off Test after cycles - MPa**	**Variation**
		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 CORKWALL after exposure to filtered xenon-arc radiation	EN ISO 11341:2004 and NP EN ISO 4624:2004	**Suport**	**Pull-off Test before cycles - MPa**	**Pull-off Test after cycles - MPa**	**Variation**
		PVC	1,27	1,4	10,5%
		Concrete slab	0,45	1,18	158,6%
Determination of the specific heat of CORKWALL coating material	-	1,979 J/(g.K)			
Determination of slip resistance by means of the pendulum test	NP EN 14231:2006	**Support**	**Slip resistance value in wet conditions**	**Slip resistance value in dry conditions**	**Decrease**
		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 CORKWALL submitted to hydrothermal cycles (heat-cold)	NP EN ISO 4624:2004	**Support Material**	**Pull-off Test before cycles - MPa**	**Pull-off Test after cycles - MPa**	**Variation**
		EPS	0,25	0,32	29,1%
		Concrete slab	0,45	0,78	71,6%
		PVC	1,27	1,51	18,9%
Analysis of the evolution of heat transfer through systems with and without coating CORKWALL	-	**Specimen**		**Heat Transfer Resistance**	
		EPS+Zinco (with and without CORKWALL)+EPS		Higher with CORKWALL	
		EPS+MDF (with and without CORKWALL)+EPS		Higher with CORKWALL	
Determination of the mechanical resistance of different materials coated with CORKWALL exposed to condensation - water atmosphere	NP EN ISO 4624:2004	**Support Material**	**Pull-off Test before cycles - MPa**	**Pull-off Test after cycles - MPa**	**Variation**
		EPS	0,25	0,4	61,0%
		Concrete slab	0,45	0,49	7,9%
Test for External Fire Exposure in roofs. Test 1: Burning Torch Method, in Accordance with UNE-ENV 1 187:2003	UNE-ENV 1187:2003	**External fire spread**		**Fire Penetration**	
		NO		NO	
Reaction To Fire Test in Accordance with UNE-EN 13823:2002 and UNE-EN ISO 11925-2:2002	UNE-EN ISO 11925-2:2002	**THP600 (MJ)**	**FIGRA 0,2MJ (W/s)**	**FIGRA 0,4MJ (W/s)**	**TSP 600S (m²)** / **SMOGRA (m²/s²)**
		1,72	110,71	78,44	153,47 / 30,69
		LFS	**DROP T≤10s**	**DROP T>10s**	
		< to the edge	No	No	
Measurement of Surface Temperatures and Heat Flow Under Radiation	UNE-EN ISO 12543-4:1998		Fibre cement without coating	White Cork 14	White Cork 18 / Natural Cork 10
		Exposed surface temperature (ºC)	36,7	35,3	32,9 / 36,7
		Unexposed surface temperature (ºC)	35,2	30,7	27,8 / 28,6
		Heat flow (W/m²)	237,4	123,3	99 / 166,2
Measurement of Surface Temperatures and Heat Flow Under Radiation	UNE-EN ISO 12543-4:1998		Fibre cement without coating	Natural Cork 13	White Cork 13 / Natural Cork 10
		Exposed surface temperature (ºC)	42,9	41,6	41,3 / 43
		Unexposed surface temperature (ºC)	37,3	35,5	35 / 37,1
		Heat flow (W/m²)	122,2	64,4	65,8 / 100,1