



Material Safety Data Sheet
 PRODUCT VIPEQ F08 DATE 1 March 2020
 VERSION 1
 BY91/155/CEE

SECTION 1: INDICATIONS SUBSTANCE/ PREPARATION AND COMPANY

Substance/ Preparation: VIPEQ F08 - Thermal CorkShield	Company: Vipeq Canada 7301 East Danbro Cres Mississauga, On L5N6P8
Phone: (905) 812-2675	

SECTION 2: COMPOSITION/INFORMATION ABOUT COMPONENTS

Description: Mixture of polymers and additives cork aqueous	Hazardous Ingredients: Contains NO hazardous ingredients
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SECTION 3: IDENTIFICATION OF HAZARDS

Possible dangers: Is an innocuous product	Effects on eyes: Sight irritation
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SECTION 4: FIRST AID

Inhalation: Not hazardous product	Ingestion: Product texture does not allow ingestion
Eye Contact: Wash thoroughly with water and seek medical	Skin Contact: Wash thoroughly with water and seek medical

SECTION 5: PROTECTIVE MEASURES FOR FIRE FIGHTING

Suitable extinguishing media: Product is self-extinguishing	Unsuitable extinguishing media: Traditional media apply extenction
Special hazards fire: There IS no special risks	



SECTION 6: IN CASE OF ACCIDENTAL SPILLAGE

Personal and environmental precaution:
No need to take special measures because it is not a hazardous to the environment or to human

SECTION 7: HANDLING AND STORAGE

Manipulation:

To wash your hands with soap and water before product is dry for easy cleaning

Storage:

The product should be stored at temperatures between 5 and 35 degrees.

SECTION 8: EXPOSURE/PERSONAL PROTECTIVE EQUIPMENT

Exposure limits:

Does not require special measures or protection as it is not a dangerous product

Personal Equipment:

No need of any special equipment for the handling of product

Hands:

No need for special gloves or other protection

Eyes:

We recommend use of safety goggles during application of the product

Body protections:

Not needed

Respiratory:

Not needed or protection masks.

SECTION 9: PHYSICOCHEMICAL

Appearance:

Final product

Colour:

On request

Density:

(20 Degrees) 0, 5-0, 7gr/cc

Solubility in water:

Insoluble

Chlorides:

Free

Heavy Components:

Free

SECTION 10: STABILITY AND REACTIVITY:

Stability:

The product is stable under normal conditions

Conditions to avoid:

Not mix with other products

Hazardous decomposition:
Products are not broken down into hazardous



SECTION 11: TOXICOLOGICAL INDICATIONS

Acute toxicity based on the composition of the product, not expect widespread acute toxicological effects.

SECTION 12: ECOLOGICAL INDICATIONS

Not allowing water discharges, sewers or soil
Should not present phenomena or bioaccumulation

SECTION 13: INSTRUCTIONS FOR DISPOSAL

Product observing local regulations, the product should be incinerated in an incinerator for industrial waste

Packaging:
The package can be reused

SECTION 14: TRANSPORTATION GUIDELINES

Not hazardous product

Land transport unregulated
(RID/ADR/TPC/TPF)

Sea transport unregulated
(IMDG)

Air transport unregulated
(ITA/ICAO)

SECTION 15: REGULATIONS

CEE regulations:
The substance must be labeled according to Annex 1 of the directive

CE "dangerous substance" with the following data Classification and symbol
Risk phrases:

Safety phrases:
S7 Stay away from children, keep the container tightly closed

SECTION 16: ADDITIONAL INDICATIONS

The data shown corresponds to our current knowledge and are not a guarantee of the properties. The recipient of the product under its responsibility shall observe the rules and regulations



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	Color	ΔE		
		Red	1.91		
		Green	3.98		
Determination of liquid water permeability	UNE-EN 1062-3:2008	0.12+0.01 kg/(m ² 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	Support	Pull-off Test before cycles - MPa	Pull-off Test after cycles-MPa	Variation
		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-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 Corkshield® after salt spray test	NP EN ISO 9227:2011 and NP EN ISO 624:2004	Support	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 Corkshield® exposure to filtered xenon-arc radiation	EN ISO 11341:2004 and NP EN ISO 4624:2004	Support	Pull-off Test before cycles - MPa	Pull-off Test after cycles - MPa	Variation
		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	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 Corkshield® submitted to hydrothermal cycles (heat-cold)	NPEN ISO 4624:2004	Support Material	Pull-off Test before cycles-MPa	Pull-off Test after cycles - MPa	Variation
		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®		Specimen		Heat Transfer Resistance	
		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	Support Material.	Pull-off Test before cycles - MPa	Pull-off Test after cycles - MPa	Variation
		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	External fire spread		Fire Penetration	
		NO		NO	
Reaction To Fire Test in Accordance with UNEEN 13823:2002 and UNE EN ISO 11925-2:2002	UNEEN ISO11925-2:2002	THP600 (MJ)	FIGRA 0.2MJ (W/s)	FIGRA 0.4MJ (W/s)	TSP 600S SMOGRA (m²) (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 Cork18 Natural Cork 10
		Exposed surface temperature CC)	36.7	35.3	32.9 36.7
		Unexposed surface temperature (°C)	35.2	30.7	27.8 28.6
		Heat flow (W/m²)	237.4	123.3	99.0 166.2
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
		Exposed surface temperature CC)	42.9	41.6	41.3 43.0
		Unexposed surface temperature (°C)	37.3	35.5	35.0 37.1
		Heat flow (W/m²)	122.2	64.4	65.8 100.1

Flame Spread and Smoke Test <i>CAN/ULC 5102-1s</i>	Flame spread zero Smoke Developed 10 out of 450
Vapor Test <i>ASTM E96/E96M-16</i>	Water Vapor Transmission - 375.78 g/day.m ²
Salt Test <i>ASTM B1117-18</i>	No visible signs of damage - 0.5%
Combustibility Test <i>ULC 5135:1992</i>	Zero Flame spread , no particulates created Thermal Cork Shield melts does not burn
Fungi Test <i>ASTM G21-2015</i>	Vipeq Thermal Cork Shield received an average growth rating of zero, meaning there was No Growth(0%)

For more info please visit us
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VIPEQ
A M E R I C A



VIPEQ
C A N A D A

VIPEQ THERMAL CORKSHIELD

F08

VIPEQ® F08

APPLICATIONS

Ecofriendly decorative Spray Cork coating for long-lasting protection and renovation of walls and facades.

Finish coating for external insulation systems, VIPEQ THERM ETICS.

FORMULATION

Mixture of selected cork particles with different types of water based resins, mineral filler, stabilizer and special additives.

SPECIFICATIONS

Appearance	Doughy product
Final texture	Grainy
Colour	Natural brown, off-white, extrawhite and range of colours
Density	0.5-0.7 g/cm ³
Granulometry	0.5-0.8 mm
Fire reaction (UNE-EN 13501 :2002)	Bs2,d0 and Broof (t1)
Thermal conductivity (UNE-EN 12667:2002)	0,058 (W/mK) at 10°C

CHARACTERISTICS

- Vapour-permeable.
- Rainwater proof on vertical walls.
- Flexible, prevents retraction fissures.
- Continuous thermal coating, improving insulation on thermal bridges.
- Improves acoustic comfort reducing resonance.

SUBSTRATES

Traditional mortar, concrete, bricks, corrugated steel sheet, wood, PVC, expanded polystyrene (EPS), extruded polystyrene (XPS), single layer mortar, on exterior and interior walls, plaster and plasterboard on interior walls.

Old paint or synthetic coating providing they are in good condition and attached to the substrate.

CORK FIX adhesive paste and lime mortars used in VIPEQ THERM ETICS systems.

The substrate must be clean, dust-exempt, dry and free of oils and grease. Curing of cement mortar renderings must be fully finished. Level flatness of the substrate with a suitable repairing mortar or CORK FIX.

For highly absorbent substrates, it is advisable to previously apply a primer.

INSTRUCTIONS FOR USE

There are two components inside the container. Stir cork emulsion with the component II inside a hod, by an electric mixer until the dough is homogeneous. In case of coloured coating, pour the colourant and stir the mixture again. Some water can be added to achieve a proper viscosity using the colourant bottle.

The product must be applied by mechanical projection in two or more layers. Estimated drying time between layers is 24h, although it varies depending on ambient humidity and temperature.

- Application standard thickness: 3 mm
- Dry touch: 30 minutes (Ambient temperature 20°C)
- Total drying: 12-24 hours
- Estimated Performance for 3 mm. thick coating:
 - Standard colours: 1.8-2.0 kg/m²
 - Extra-white colour: 2.2-2.4 kg/m²
- Application temperature: from +5°C to + 45°C

RECOMMENDATIONS

Thoroughly mix the product by an electric mixer (1,800W and 780 rpm) using an extra-fast VIPEQ 152 type mixing rod until the dough is homogeneous.

Use adhesive tape for limiting working areas, covering window frames or making decorative drawings on facades.

Tools must be cleaned with soap and water before the product is dry. Otherwise they should be kept underwater with detergent for at least one day. Then, thoroughly brush the remaining product.

STORAGE

The product must be kept away from sunlight exposure, temperatures above 45°C or below -2°C. In its original container tightly closed and protected from moisture: 1 year.

PACKAGING

12 kg. plastic pail. 432 kg pallet (36 pails).

RISK SYMBOLS

- S2 Keep out of the reach of children
- S7 Keep container tightly closed

DISCLAIMER

The information and recommendations given in this technical data sheet reflect our current knowledge, laboratory tests and experience. For this reason, our guarantee is limited to the quality of the product supplied. This company shall not assume any liability arising from misuse of our products.

THERMAL CONDUCTIVITY

ASTM C518-17 "Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus":

Average thermal resistance values at 1"		
Mean Temperature (°C)	Avg. Thermal Resistance at 1" (25 mm)	
	°F·ft ² ·h/Btu at 1"	K · m ² /W at 25 mm
23	1.600	0.277

Variability of thermal resistance values at 1"			
Mean Temperature (°C)	Standard Deviation (°F·ft ² ·h/Btu at 1")	Standard Deviation (K · m ² /W at 25 mm)	Coefficient of Variation
23	0.058	0.010	4%

EN 12667:2002 "Thermal performance of building materials and products. Products of high and medium thermal resistance":

Thermal conductivity (W/mK): 0.058

Measurement of Surface Temperatures and Heat Flow Under Radiation as indicated in UNE-EN ISO 12543-4:1998:

Sample	% of heat flow through the sample in relation to the flow through the fibre cement	Difference between sample with coating and sample without coating
Fibre cement without coating	100%	-
Fibre cement with 6 mm. natural VIPEQ coating	52.7%	47.3%
Fibre cement with 6 mm. white VIPEQ coating	53.8%	46.2%
Fibre cement with 3 mm. natural VIPEQ coating	81.9%	18.1%

FIRE SAFETY

CAN/ULC S102-18 "Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies":

- Flame Spread Rating: **0**
- Smoke Developed Classification: **10**

EN 13501-5:2005 "Fire classification of construction products and building elements. Part 5: Classification using data from external fire exposure to roofs tests": **B_{ROOF(t1)}**

EN 13501:2007 "Fire classification of construction products and building elements. Part 1: Classification using data from reaction to fire tests: **B-s2, d0**

Test Method	Parameter	Result
EN 13823:2002	FIGRA ^{0.2 MJ}	110.71 W/s
	FIGRA ^{0.4 MJ}	78.44 W/s
	LFS<edge	YES
	THR _{600s}	1.72 MJ
	SMOGRA	30.69 m ² /s ²
	THR _{600s}	153.47 m ²
	Flaming droplets/particles	NO
EN ISO 11925-2:2002	Fs < 150 mm. (in 60 sec.)	YES
	Ignition of filter paper	NO

SOUND ABSORPTION

ISO 10354-2 "Standard Incidence Sound Absorption Coefficient Test":
 $\alpha = 0.24$ (250 Hz); 0.20 (500 Hz); 0.32 (630 Hz); 0.23 (1000 Hz); 0.30 (2000 Hz)

WATER VAPOR TRANSMISSION PROPERTIES

ASTM E96/E96M-16 "Standard Test Methods for Water Vapor Transmission of Materials":

Test Result Summary	Metric units	Imperial Units
Water Vapor Transmission	15.66 g/hr. m ²	22.39 grns/hr.ft ²
	375.78 g/day.m ²	537.36 grns/hr.ft ²
Water Vapor Permeance	3046.29 ng/Pa.s.m ²	53.26 perms
	0.20 per mm.	840.20 per in.
Water Vapor Permeability	4.90 ng/Pa.s.m	840.20 Perm inch

EN ISO 7783:2012 "Determination of water-vapour transmission properties":

Water vapour transmission rate V (36.83 g/m² x day)

Equivalent air layer thickness S_D = 0.57 m.

Class I: S_D < 5 m. (water vapour permeable)

LIQUID WATER PERMEABILITY

EN 1062-3:2008 "Determination of liquid water permeability":
 Transmission index of liquid water W: 0.12 ± 0.01 kg/(m².h^{0.5})

RESISTANCE TO MOLD/FUNGI/ALGAE

ASTM D3273 - 2016 "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coating in an Environmental Chamber":
 Samples received a rating of 10 meaning there was zero defacement on the test specimens at the completion of the mold resistance evaluation.

ASTM G21 - 2015 "Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi":
 Samples received an average growth rating of 0 meaning there were No Growth (0%) on the test specimens at the completion of the fungal resistance evaluation.

Dry film fungal/algal resistance test (Thor Method 800.2/850.2)

The results of the test indicate that the samples have adequate protection against moulds and algae after a pretreatment in QUV during 250 hours.

RESISTANCE TO SALT

ASTM B117-18 "Standard Practice for Operating Salt Spray (Fog) Apparatus":

Slight color change observed as samples were darker shade of red when compared to control. Average mass loss was 0.5% and no other signs of damage were observed.

COLOUR AGEING

UNE 48073-2:1994 "Difference in colour after ageing in accordance with UNE-EN ISO 4892-3:2006:
 ΔE^* (red): 1.91; ΔE^* (green): 3.98

DIMENSIONAL STABILITY

EN 1604:2013 "Determination of dimensional stability under temperature and humidity conditions (60°C / 50% h.r.):
 Dimensional change: Length (-0.1%), Width (-0.1%), Thickness (+0.4%)