COREV AMERICA PRODUCT TESTING SUMMARY

PRECOR-SB™ Thermal Wall System With Water-Resistive Secondary Barrier

Maintaining the highest standards within the industry is Corev America's highest priority. Corev's Research and Development Program includes extensive testing to assure its customers of top performance in every product.

EXTENSIVE FIRE TESTING

Test	Method	Description	Results
Full Scale Multi Story Fire Assembly over 4" EPS	UBC 26-4 (previously UBC 17-6)	Severe fire exposure of a two story structure with PRECOR	No flame propagation through core or exterior face of system
Surface Burning Characteristics (assembly over 4" EPS)	ASTM E 84 (UL 723, UBC 42-1)	Smoke development Flame Spread Index	165 25
Surface Burning Characteristics (FINISH COATNIGS ONLY	ASTM E 84 (UL 723,UBC 42-1)	Smoke Development Flame Spread Index Fuel Contribution	5 5 0
Large Scale Vertical Fire Spread Test for EIFS (4"	Modified ASTM E 108	Fire simulation of EIFS assembly on vertical wall	No significant vertical or horizontal flame spread. Limited smoke production.
Fire Performance Evaluation of 1 and 2 hour wall assembly over 1" EPS	ASTM E 119-95	System over gypsum sheathing and steel studs	Wall assembly received 1 hour and 2 hour fire resistance rating
Burning Characteristics (FINISH COATINGS ONLY)	Military Spec. MIL-M1014G	Bellstein Test Smoke Development Flame Spread Ash	Negative Light 5" Light
Potentially Hazardous Gas Emissions Upon Burning (FINISH COATING ONLY)	Military Spec. MIL-M-14G Results expressed in PPM.	Chlorine Hydrogen Chloride Phosgene Ammonia Carbon Monoxide Cyanides as HCN Sulfur Dioxide Aldehydes as HCHO Carbon Dioxide Nitrogen Oxides	0 0 0 0 140 0 0 2 9125 28
Ignitibility using radiant heat energy source heat energy source (3/4" and 4" EPS)	NFPA 268	Radiant heat ignition resistance for exterior wall	no ignition

STRUCTURAL TESTING

Test	Method	Description	Results
Wind Load Resistance	ASTM E 330	¾" EPS Over 20g. 16" O.C. Studs; 5/8" Gyp. Sheathing	Tested to negative 120 psf positive and negative loads without failure
Wind Load Resistance	ASTM D 2794	15 lbs. cup 2" dia. / 2.5" raduis nose	Mean Failure Energy: 56.6 ft./lbs.
Impact Resistance	EIMA 101.86	Wall system with: Standard mesh Medium mesh High impact mesh Ultra -high impact mesh	 Pass Pass Pass Pass
Wall Assembly Impact Resistance	ASTM E 695 (Formerly E 72)	1" to 4" EPS over various assembly configurations	Pass with no damage to finish
Hardness	Rockwell R Scale	Corevsand Decorplast	25.5 24.2
Bond Strength Test (ICBO Freeze/Thaw)	ASTM D 297	System over 1" EPS ¼" fiberboard substrate	No evidence of cracking or other damage

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RESISTANCE TO ELEMENTS

Test	Method	Description	Results
Accelerated Weathering	ASTM G 23	2000 Hours Carbon Arc Method	No deterioration or Color Change
Salt Fog Resistance	ASTM B 117	500 Hrs. of 5% Salt Fog	No Change
Humidity Resistance	ASTM D 1735	500 Hours of 100% Water Fog	No Change
Wild Driven Rain	Fed. Spec. TT-C-555B	24 Hour Exposure	0.35% Weight Gain No Water Penetration
Freeze thaw stability	ASTM C 67	Repeated Cycles Exposing EIFS System Sections to Severe Soaking/ Freeze/ Thaw	No Delaminating, Cracking or other Deterioration
Abrasion	ICBO AC24, sec6.5 ASTM D 969(1000Lts.)	Resistance to Wear	Pass No Perceptible Change
Chemical Resistance	ASTM D 1308	Hydrochloric Acid 10% Ammonia Hydroxide Turpentine Fuel Oil	No Change No Change Moderate Softening Slight Softening
Mildew Resistance	Military STD.810B	Method 508	No fungus Growth
Water Penetration	ASTM E 331	Resistance to Water	No Water Penetration
Water Resistance	ASTM D 2247	Resistance to Water	No Water Penetrationr
Water Vapor Transmission	ASTM E 96	Permeance thru 1"EPS Assembly at75 °F/50%R.H.	1.036 Grains/Hr.-Ft.2 2.368 Perms

INSULATION BOARD TESTING

Test	Method	Description	Results
Thermal Conductivity	ASTM C 177, C 518	K Factor	0.23@25 F / 0.24@40 F 0.26@75 F
Thermal Resistance	ASTM C 177, C 518	R Value for 1" Board	4.35@25 F /4.17@40 F 3.85@75 F
Compressive Resistance			
Compressive	ASTM C 165/1621	10% deformation (psi)	10.0 - 14.0
Flexural	ASTM C 203	Values in psi	25.0 - 30.0
Tensile	ASTM D 1623	Values in psi	16.0 - 20.0
Sheer	ASTM D 723	Values in psi	18.0 - 22.0
Sheer Modulus		Values in psi	230 - 320
Modulus of Elasticity		Values in psi	180 - 220
WVT	ASTM E 96	Values in Perms-Inches	2.0 - 5.0
Water Absorption	ASTM C 272	Maximum volume in %	4.0
Dimensional Stability	ASTM D-2126	Change in dimension expressed in maximum %	2.0
Coefficient of Thermal Expansion	ASTM D 696	in/(in.)(F)	0.000035
Surface Burning	ASTM E 84(UBC 42-1)	Flame Spread Smoke Development	Less than 25 Less than 450

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