

CONCRETE DURABILITY		RESULTS	RECOMMENDED DESIGN VALUES
ASTM C457	Hardened Air Void Analysis	Pass	Spacing Factor: $\leq 0.008''$ Specific Surface: $> 600 \text{ in}^2/\text{in}^3$ of air void volume Total Air Content: $7.5\% \pm 1.5\%$ Void Frequency: must be significantly greater than the numerical value of % air in the concrete
ASTM C666	Resistance of Concrete to Rapid Freezing and Thawing	Pass	$\geq 90\%$ Relative Dynamic Modulus @ 300 Cycles
ASTM C672	Scaling Resistance of Concrete Surfaces Exposed to Deicing Chemicals	Pass	A Visual Rating of 0 (No Scaling) @ 50 Cycles
Carbonation Depth	Carbonation Using 1% Phelothalein	Pass	No Surface Carbonation
MECHANICAL PROPERTIES		RESULTS	RECOMMENDED DESIGN VALUES
ASTM C39	Compressive Strength of Cylindrical Concrete Specimens	Pass	$\geq 7,500 \text{ psi}$
ASTM C78	Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading) Modulus of Rupture	Pass	$\geq 650 \text{ psi}$
ASTM C469	Static Modulus of Elasticity	Pass	$\geq 4,433,000 \text{ psi}$
ASTM C138	Unit Weight	Pass	$\leq 150 \text{ lbs/ft}^3$
ASTM C231	Entrained Air Content	Pass	$7.5\% \pm 1.5\%$
ASTM E330 Structural Performance Of Exterior Windows, Doors, Skylights And Curtain Walls By Uniform Static Air Pressure Difference			
Full-scale ASTM E330 test has been performed on ThinCast™, providing results for the engineering evaluation of the ThinCast™ panel and attachment fasteners. The rail and or bracket attachment system, and the underlying wall is not designed by High Concrete Group.			
FIRE TESTING/SURFACE BURNING CHARACTERISTICS		RESULTS	RECOMMENDED DESIGN VALUES
ASTM E84	Surface Burning Characteristics of Building Materials	Pass: Class A	Class A: Flame Spread Index 0-25
ASTM E84	Smoke Developed Index	Pass: Class A	Class A: Smoke Development Index 0-450
ASTM E136	Assessing Combustibility of Materials	Pass: Non-combustible	Mass loss $\leq 50\%$, Surface and Interior Temperature Rise $\leq 30^\circ\text{C}$, No Flames After 30 Seconds
TYPE A316 STAINLESS STEEL WIRE		RESULTS	RECOMMENDED DESIGN VALUES
RR-W-410	Federal Wire Specification	Pass	Break Strength $\geq 920 \text{ lbs}$
ASTM A1096	Wire Bond	Pass	Maximum Measured Wire Slip $\leq 0.1000''$
THINCAST™ RAINSCREEN PANEL PRODUCT TOLERANCES		REQUIREMENT	
Height	Overall Height of Panel	$\pm 1/16''$	
Width	Overall Width of Panel	$\pm 1/16''$	
Thickness	Total Thickness of Panel	$\pm 1/16''$	
Squareness	Variation of Square	$\pm 1/8''$	
Through Hole	Position of Through Hole from Panel Edge	$\pm 1/16''$	
Bowing	Bowing	L/360, not to exceed $\pm 1/8''$	
Back Wire	Location of Back Wire to Panel Edge	$\pm 1/16''$	
Face Wire	Location of Face Wire to Panel Edge	$\pm 1/16''$	
Wire to Wire	Distance from Wire to Wire	$\pm 1/32''$	
Wire to Panel Face	Location of Face Wire and Back Wire to Face of Panel	$\pm 1/32''$	