

Edge Restraint

Edge Restraints keep media and plants in place while allowing the green roof system to drain.

Green Roof Solutions' edge restraints are designed to meet or exceed flow rate standards set by FLL and ASTM.

Flow rates can easily manage more than 20x that required for a 10 years storm event in the heaviest rainfall area of the US.



PRODUCT DATA

M	Available in aluminum & stainless steel		
Material & Coating	Corten steel and other custom metals availale upon request		
	Epoxy coating available for all edge restraints		
	Aluminum: 0.10"		
Standard Thicknesses	Stainless: 16 ga		
	Corten: 14 ga		
Each Piece	8' long		
Vertical Leg Lengths	3" to 8.5" (.5" increments)		
	Other heights available upon request		
Slot Size (Straight & Flex)	2" x 0.25"		
Slot Spacing (Straight & Flex)	1" on center		
Flow Rate	5.4 gal/min/ft		
	* Flow at 1" drainage layer depth		
	Clips (2.5" tall, 6" tall)		
Accessories Available	Corners (2.5", 5", 7", & 9" tall)		
	Leveling Strips		
Warranty	10 years		
	* Please note, exclusions include but are not limited to staining on aluminum edge and accessories		





TECHNICAL DATA				
Properties		Units	Epoxy Coating	Test Method
Recommended Epoxy Coating Thickness		microns	200-600	-
Appearance		-	Smooth/Glossy	-
Impact Strength: Gardner (drop weight)	Direct 23°C (water quenched)	Joules	1.9	
	Indirect 0°C	Joules	6.5	
Abrasion ****		-	69 mg weight loss	ASTM D-4060/84
Salt Spray	Steel-Scribed ****	-	<15 mm from scribe	ISO 7253
	Steel-Unscribed ****	-	No adhesion loss	ISO 7253
Gloss - 60 Degree		-	65-85	ASTM D-523
Pencil Hardness		h	2 Minimum	ASTM D-3363
Direct Impact		in/lbs	120 Minimum	ASTM D-2794
Reverse Impact		in/lbs	100 Minimum	ASTM D-2794
Cross-Hatch Adhesion			4B - 5B	ASTM D-3359
Humidity		hours	1000 Minimum	ASTM D-1735
Water Immersion		hours	240 Minimum	ASTM D-870
Gravelometer		-	6 Minimum	GM 9508P

EPOXY COATING CORROSION RESISTANCE

Substrate / Pretreatment	Salt Spray* 500 hrs	Salt Spray* 1000 hrs	20 Cycle** Scab
CRS/Zinc Phos/Chrome	0mm	0-1mm	1-2mm
CRS/Zinc Phos/Non-Chrome	0mm	0-1mm	1-2mm
CRS/Zinc Phos/DI Water	0-2mm	1-4mm	1-3mm
CRS/Iron Phos/Chrome	0-1mm	2-4mm	3-5mm
CRS/Iron Phos/Non-Chrome	1-3mm	2-5mm	2-4mm
CRS/Iron Phos/DI Water	2-9mm	10-15mm	10-14mm
CRS/Untreated	5-10mm	14-18mm	13-15mm

Average Total Scribe Creep: * Salt Spray - ASTM B-117 ** Cycle Scab - GM 9511P, Cold Rolled Steel Lab Panels Cure 20 Minutes @ 375° F



^{*} Gardner (drop weight) ** H18, 500g load, 1000 cycles *** After 500 hrs
**** Data applies to a 350 micron coating applied under standard conditions onto 3mm thick steel or aluminum