FRACTURED 3/4” FIN 1-1/2” O.C. 1412

TECHNICAL DATA

Fractured 1412 HIPS
High Impact Polystyrene Plastic

Properties	Rating	ASTM
IZOD Impact, ft.-lbs./in.		
@70˚F	2.0	D256
@0˚F	1.3	D256
Tensile Strength	3,700 psi	D638
Heat Deflection	188	D695
Vicat Softening	212	D1525
Wt.lb./sq.ft.		
.070 mil	.449	
.090 mil	.577	
.110 mil	.705	
.130 mil	.833	
.150 mil	.966	

Fractured 1412 ABS
Acrylonitrile-butadiene styrene

IZOD Impact, ft.-lbs./in.		
@73˚	5.6	D256
@0˚	1.9	D256
Tensile Strength, 73˚F, psi		
Yield	5,300	D638
Modulus	330,000	D638
Flexural Strength 73˚F, psi		
Yield	9,300	D790
Modulus	325,000	D790
Heat Deflection		
@264 psi	199	D648
@66 psi	211	D648
Hardness (Rockwell R) 73˚F	105	D785
Falling Dart Impact, ft.-lb.		
@73˚F	23	
@40˚F	14	
Specific Gravity	1.05	D792
Wt. lb./sq.ft.		
.070 mil	.451	
.090 mil	.580	
.110 mil	.705	
.130 mil	.833	
.150 mil	.961	

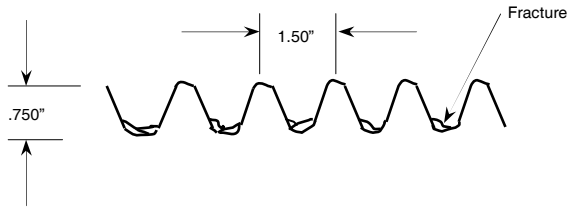
Fractured 1412 PE
Polyurethane Elastomer

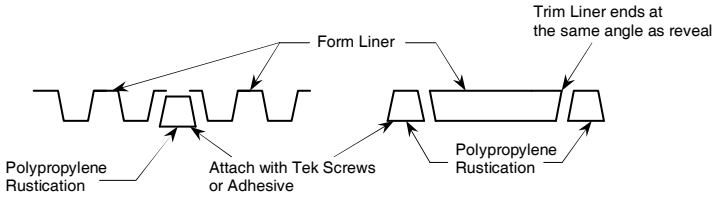
Shore A Hardness	45-50	D2240
Tear Strength, PLI	55	D624
Tensile Strength, psi	500	D638 (D412)
Ultimate Elongation	240%	D638 (D412)

Fractured 1412 PPE
Premium Polyurethane Elastomer

Shore Hardness	60-65	D2240
Tear Strength, PLI	120	D624
Tensile Strength, psi	1150	D638 (D412)
Ultimate Elongation	1200%	D638 (D412)

Manufacturing Tolerances @70˚F
Length: +1” to 2”, -0” (shipped long to allow field trimming
Width: ± 1/4”
Thickness @ edges ± 1/16” (except formliners over 1” thickness)





Attachment to Formwork
Thermoform Formliners can be used in precast, tilt-up or cast -in-place applications. Single-use HIP is most frequently used for tilt-up applications and can be installed using Tek drywall screws or pneumatic staplers, spacing should be approximately 6” to 12” on center around the perimeter and 18” to 24” through the center. Double Sided Tape, “Formica Top” adhesive, Heavy Duct Tape or Silicone Caulk are all the common ways to attach formliners. Make sure all surfaces are clean, dry and free of dust and debris. Formliner PE & PPE liners are attached from the back with 3/8” bolts when optional T-nuts are installed.

Form Placement
It is important that forms for architectural concrete be aligned and in common planes. A “Stack up” of manufacturing tolerances can result in forms being in different planes, even when properly aligned. This creates a noticeable “step” in the finished surface, particularly with shallow Formliner patterns.

Rustication
Reveals or rustications are recommended at butted joints so it will allow the features of the liner to appear continuous. All butted joints should be taped and/or caulked to reduce grout leakage.

Form Release
Formliners should be sprayed with high end form release agent before each use and within the same day that concrete is placed. Apply with low flow, wide angle, flat spray nozzle and wipe with a cloth to insure a complete even coat to the entire formliner surface.