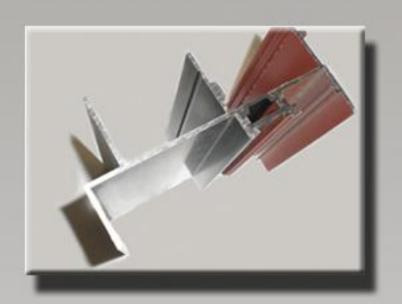
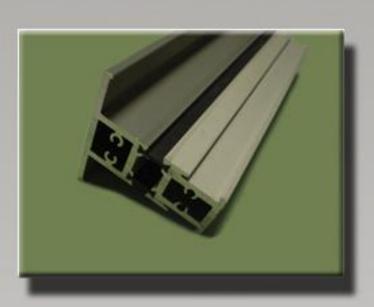
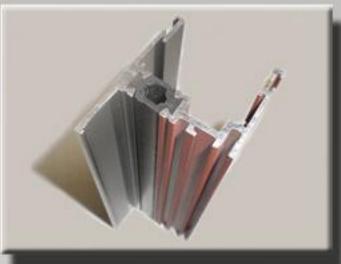
# Thermal Break Systems









### **TECHCON GROUP, INC.**

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## ISOBAR<sup>TM</sup> Thermal Break Systems

Isobar™ is an extruded polymide material specially formulated for superior strength and increased insulation. Isobar™'s thermal coefficient of expansion is close to that of aluminum minimizing dry shrinkage commonly associated with normal pour and debridge methods. This makes Isobar™ not only suitable as a thermal break but as a weatherstripping groove or as another part where rigid PVC would normally be used.

Two tone windows incur no additional cost to produce. Savings can be achieved by using more expensive finishes on the outside and lower cost finishes on the inside. Combinations of anodized Kynar paint, acrylic baked enamel paint, and powder paint are possible.

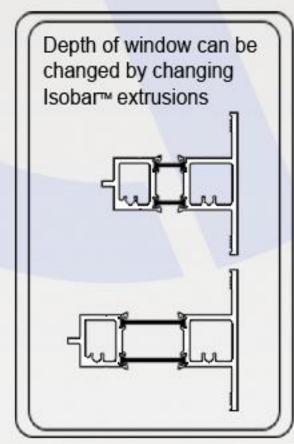


#### Use the Same Fabrication Tooling

Isobar™ comes in over four hundred different profiles including custom shapes to match your pour and debridge profile so you can utilize the same fabrication tooling.

#### Benefits of Isobar™

- · Lower cost than traditional pour and debridge method
- Higher strength
- Better insulation properties
- · No added cost for two tone finishes
- · Allows hardware to be attached to it
- · Nearly eliminates dry shrinkage
- Can be used as other parts besides thermal break



#### 100 Series

classification	Item	Unit	Measured Data
Material properties (test in normal conditions)	Density	g/cm <sup>3</sup>	1.30±0.05
	Liner expansion coefficience	K-1	(2, 3~3, 5) ×10 <sup>-5</sup>
	Shore hardness (Ho)		80±5
	Load (0.45MPa) deformation temperature	77	230
	Tensile strength (transverse)	MPa	70
	Tensile strength (longitudinal)	MPa	80
	Elasticity (modulus)	MPa	4500
	Glass fiber content	%	25±2.5
Water resistance	tensile strength (transverse)	MPa	35
Aging resistance	tensile strength (transverse)	MPa	50

Note:

1 Texting condition: Normal indoor temperature 23℃±2℃ with relative humidity of 50%±5%.

2 Tensile strength (transverse) "a" only applied to I-shape strip.

#### 200 Series

Item	Un	Measured Data
Density	g/c	1.32
Liner expansion expansion coefficience	K-1	30×10 <sup>-5</sup>
Vicat softening temperature	2,	249
Load (0.45MPa)deformation temperature	°C	252
Testing for tensile cracks	\$ <b>=</b> \$6	No crack
Shore hardness (HD)	89-8	84
Impact strength (unnotched)	KJ/	58
Tensile strength (longitudinal)	M	105
Elasticity (modulus)	М	6100
Elongation at break	%	5.1
Tensile strength (transverse)	М	102*
Tensue Strength (transverse)	Pa	
High temperature tensile strength (transverse)	M	61*
Low temperature tensile strength (transverse)	М	106"
Water resistance tensile strength (transverse)	M	52"
Aging resistance tensile strength (transverse)	M	58*
Note: The specification made with "a" only applies to the I-shaped strip		