

High performance refractory material

**Thermlac 444**

Emhart Glass announces a breakthrough in bonded refractory technology – Thermlac 444. In field trials of refractory expendables, it has been demonstrated that Thermlac 444 offers improved thermal shock resistance when compared to standard bonded AZS compositions.

Ready to fabricate? Start the process by contacting your Emhart Glass representative

## Thermlac 444 High Performance Refractories

### Description

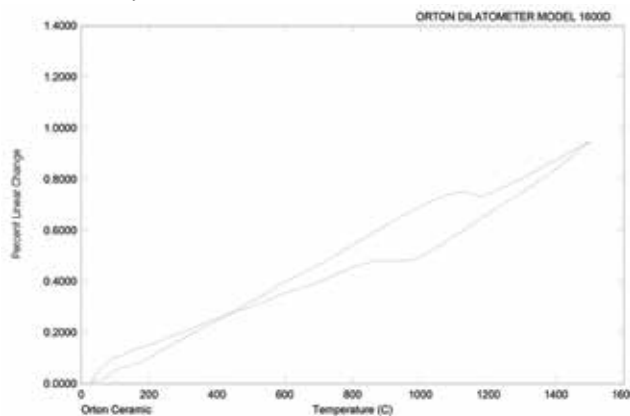
Mix ID: 444  
 Mix name: Emhart Glass 444 THERMLAC  
 Type: Cast

Applications: Thermlac 444 is the newest material from the refractories-for-glass experts at Emhart Glass. Zircon Mullite composition designed for refractory tubes. The material has good resistance to glass corrosion and is the choice material for thermal shock resistance.

### Specifications

Property	Value	Chemistry	Wt %
Porosity	22%		
Density	2.8 g/cc	Al <sub>2</sub> O <sub>3</sub>	82
MOR	850 psi	SiO <sub>2</sub>	6
Apparent Specific Gravity	3.6	ZrO <sub>2</sub>	11
PCE	>38	Fe <sub>2</sub> O <sub>3</sub>	<1
Linear Thermal Expansion	7.0 X 10 <sup>-6</sup> in/in/°C	NaO	<1
		CaO	<1
		MgO	<1
		TiO <sub>2</sub>	<1
		Other	<1

Thermal Expansion Curve



Specifications are subject to change.

### Emhart Glass Worldwide Presence

Principal  
 Emhart Glass SA  
 Hinterbergstrasse 22  
 CH-6330 Cham, Switzerland  
 Tel. +41 41 749 42 00 Fax +41 41 749 42 71

**Leipzig Germany**  
 Tel. +49 341 250773 20 Fax +49 341 250773 21

**Savona Italy**  
 Tel. +39 019 51 66 1 Fax +39 019 51 66 301

**Kawasaki Japan**  
 Tel. +81 44 222 7371 Fax +81 44 222 4868

**Johor Bahru Malaysia**  
 Tel. +6 07 863 1122 Fax +6 07 863 7717

**Singapore**  
 Tel. +65 6778 1466 Fax +65 6778 9433

**Örebro Sweden**  
 Tel. +46 19 307 500 Fax +46 19 307 501

**Sundsvall Sweden**  
 Tel. +46 60 199 100 Fax +46 60 199 261

**St. Petersburg FL USA**  
 Tel. +1 727 471 1113 Fax +1 727 471 1290

**Elmira NY USA**  
 Tel. +1 607 735 2600 Fax +1 607 735 2601

**Windsor CT USA**  
 Tel. +1 860 298 7340 Fax +1 860 298 7395

**Owensville MO USA**  
 Tel. +1 573 437 2132 Fax +1 573 437 3146

**Perrysburg OH USA**  
 Tel. +1 567 336 7733 Fax +1 567 336 8727