

# MULCOA® 43LW

A highly refractory lightweight chamotte: potential game changer in the refractory industry.

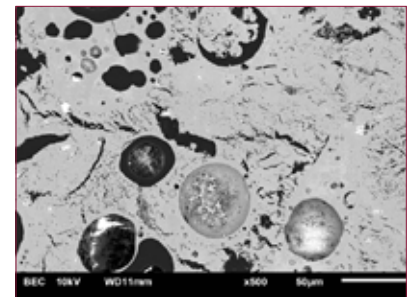
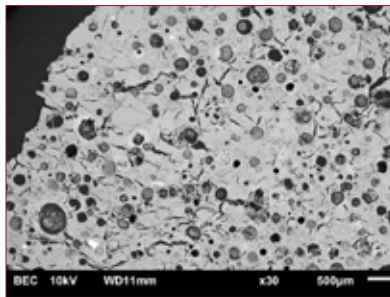
Mulcoa 43LW is based on kaolinitic clay from Georgia, USA. It is calcined with a pore forming additive in a rotary kiln. Manufacturing process allows the product to develop high closed porosity and outstanding refractoriness, yielding low thermal conductivity. With this ideal aggregate refractory, producers may potentially install single component linings.

## CHEMICAL & MINERAL COMPOSITION (% W/W)

	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	Alcalis	Specific Gravity
<b>Mulcoa 43LW</b>	41,3	1,3	0,3	1,7g/cc



Mulcoa 43 Lightweight

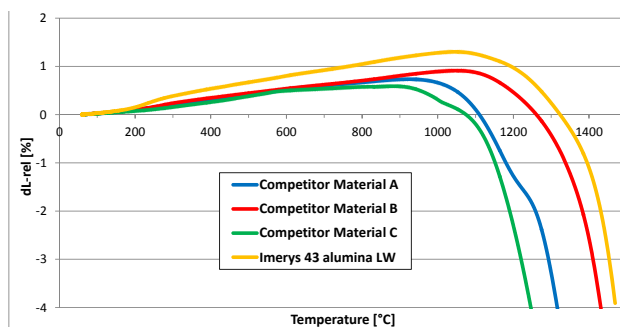


Photomicrographs of cross sections of Mulcoa 43LW

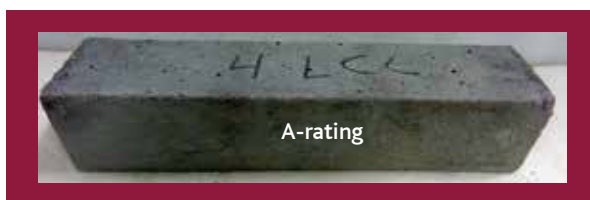
## KEY PROPERTIES

- ◆ Outstanding chemical composition : low iron and low alcalis
- ◆ Highly refractory lightweight aggregate
- ◆ 40% porosity with more than half being closed porosity
- ◆ CO resistance
- ◆ High particle hardness, low friability

## TEST RESULTS



Dilatometric analysis of Mulcoa 43LW versus European alternative lightweight chamotte.



CO resistance test on LCC, 100h at 500°C

Thermal conductivity (W/m-C)		
°C	LCC	Conventional
20	1.54	1.01
250	1.32	0.82
500	1.25	0.81
750	1.28	0.91
1000	1.33	1.03
1250	1.33	1.05
1473	1.23	0.91

Bulk density (pcf)		
°C	LCC	Conventional
316	122	108
816	122	108
982	123	108
1316	120	107
1482	121	111

HMOR (psi)		
°C	LCC	Conventional
982	2349	618
1316	293	108
1482	95	12

CCS (psi)		
°C	LCC	Conventional
316	8241	3320
816	11441	3489
982	12809	3506
1316	11319	3652
1482	15302	12639

Physical properties of LCC and conventional castables

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