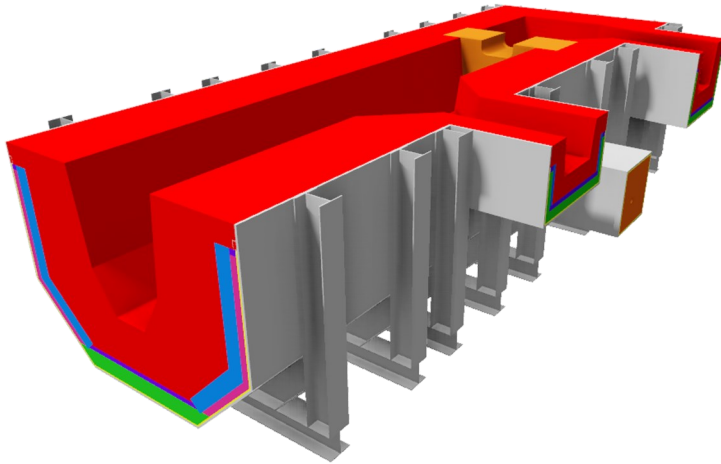




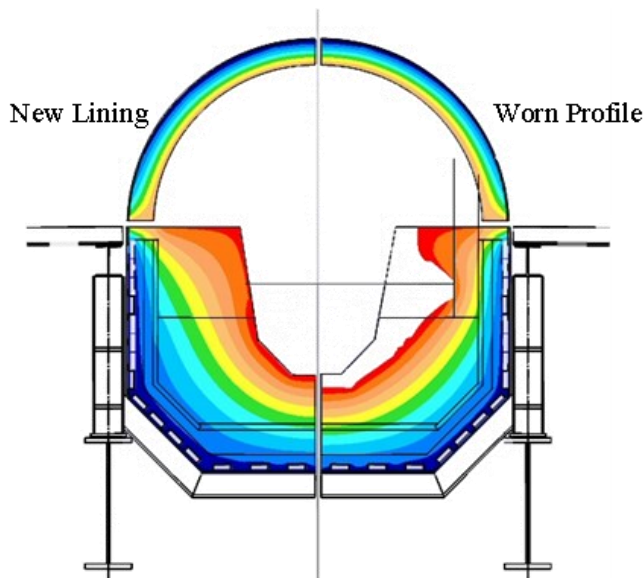
# BLAST FURNACE CASTHOUSE Services

Allied Mineral Technical Service, LLC (AMTS) works closely with Allied Mineral Products to provide value added assistance to casthouse operations.



## AMTS / AMP Services

- Refractory Selection
  - Working Lining
  - Iron runners
  - Slag runners
  - Safety Lining
  - Tilt Runners
  - Taphole Face & Inside
- Expansion Design
- Precast Skimmer Blocks
- Finite Element Analysis (FEA) of existing versus proposed design
- Trough monitoring



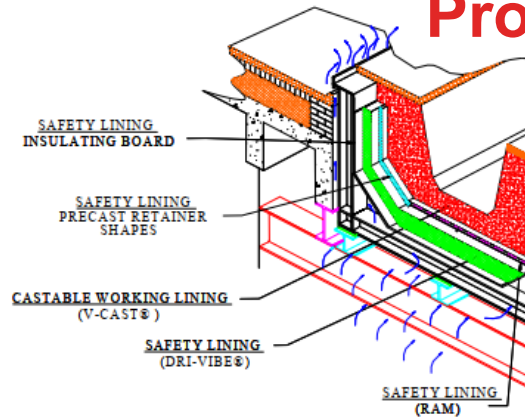
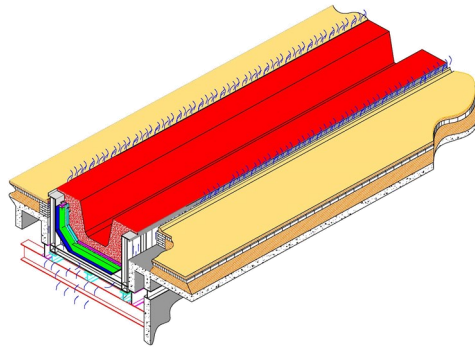
Allied Mineral Technical Services

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# BLAST FURNACE CASTHOUSE Products



Application	Products	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	SiC + C %	Density g/cm <sup>3</sup>	Density lb/ft <sup>3</sup>	°C/°F Limit	
Working Lining Step 1	V-CAST 218A	70.5	8.1	17.4	2.80	175	1705 / 3100	
	V-CAST FA2L	74.0	4.0	17.3	2.98	184	1650 / 3000	
Working Lining Step 2	V-CAST 418A	70.0	7.5	19.2	2.95	184	1705 / 3100	
	V-CAST 425A	63.3	7.1	26.6	2.90	179	1650 / 3000	
	V-CAST 429A	66.3	4.0	27.7	2.90	179	1650 / 3000	
Working Lining Step 3	V-CAST 500A	74.0	4.0	17+3	2.98	186	1705 / 3100	
	V-CAST 717A	76.3	2.3	17.5	3.04	190	1650 / 3000	
	V-CAST 719A	75.0	5.1	16.8	3.04	190	1650 / 3000	
	V-CAST 724A	65.9	6.0	22.9	2.96	185	1650 / 3000	
Working Lining Step 3	V-CAST 729A	68.6	3.0	24.1	3.04	190	1650 / 3000	
	V-CAST 739A	54.5	5.7	36.6	2.91	185	1650 / 3000	
	Safety Lining	DRI-VIBE 660A	81.0	1.4	14.7	2.96	185	1650 / 3000
Iron Runners	V-CAST 218A	70.5	8.1	17.4	2.80	175	1705 / 3100	
	V-CAST FA2L	74.0	4.0	17.3	2.98	184	1650 / 3000	
	V-CAST 418A	70.0	7.5	19.2	2.95	184	1705 / 3100	
Slag Runners	V-CAST 418A	70.0	7.5	19.2	2.95	184	1705 / 3100	
	V-CAST 425A	63.3	7.1	26.6	2.90	179	1650 / 3000	
	V-CAST 429A	66.3	4.0	27.7	2.90	179	1650 / 3000	
Slag Runners	V-CAST SL50	40.3	2.8	52.3	2.88	180	1595 / 2900	
	Tilt Runners	V-CAST FA2L	74.0	4.0	17.3	2.98	184	1650 / 3000
		V-CAST 418A	70.0	7.5	19.2	2.95	184	1705 / 3100
V-CAST 608A		79.6	4.0	7.9+2.7	2.98	186	1650 / 3000	
V-CAST HST		80.6	3.6	11.7	3.11	194	1650 / 3000	
Taphole Face & Inside	V-CAST 133A	59.6	4.2	34.5	3.21	194	1650 / 3000	

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