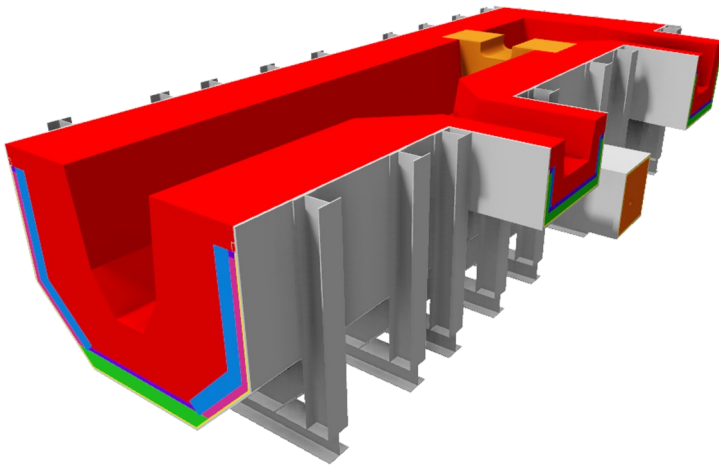


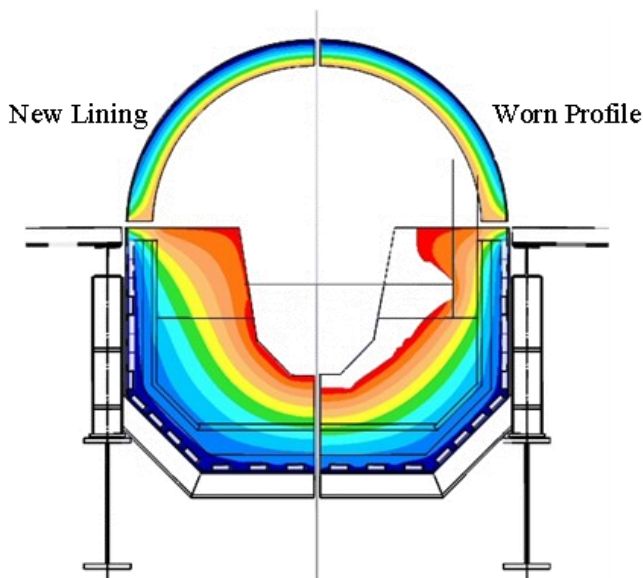
Optimizing Casthouse Operations with AMTS, LLC Services

Allied Mineral Technical Service, LLC (AMTS) partners closely with Allied Mineral Products to deliver **comprehensive, value-driven support** for casthouse operations, optimizing performance and efficiency.



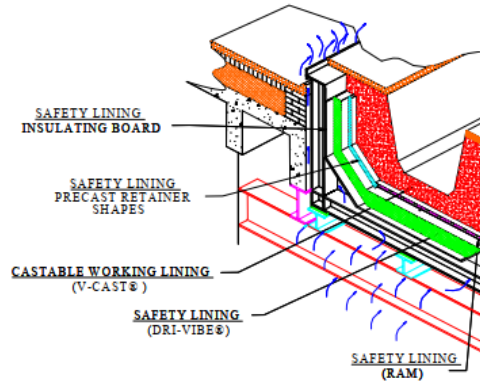
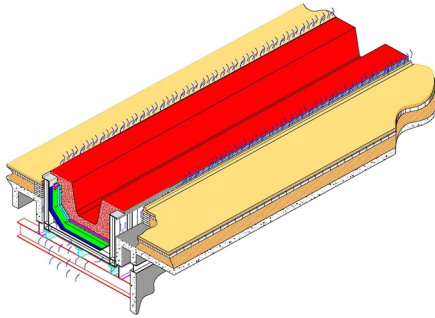
AMTS / AMP Services

- Refractory Selection
 - Working Lining
 - Iron runners
 - Slag runners
 - Safety Lining
 - Tilt Runners
 - Taphole Face & Inside



Specialized Casthouse Engineering Services

- Expansion Design
- Precast Skimmer Blocks
- Finite Element Analysis (FEA) of existing versus proposed design
- Trough monitoring



PRODUCTS

Application	Products	Al ₂ O ₃ %	SiO ₂ %	SiC + C %	Density g/cm ³	Density lb/ft ³	°C/°F Limit
Working Lining Step 1	V-CAST® FA2L	74.0	4.0	17.3	2.98	184	1650 / 3000
	V-CAST® 218A	70.5	8.1	17.4	2.80	175	1705 / 3100
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
	V-CAST® 500A	63.4	9.1	24.1	2.98	186	1705 / 3100
Working Lining Step 3	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
	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® 662A	79.8	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® 418A	70.0	7.5	19.2	2.95	184	1705 / 3100
	V-CAST® 719A	75.0	5.1	16.8	3.04	190	1650 / 3000
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® 739A	54.5	5.7	36.6	2.91	185	1650 / 3000
	V-CAST® 750A	38.6	7.4	52.6	2.88	180	1600 / 2910
	V-CAST® SL50	40.3	2.8	52.3	2.88	180	1595 / 2900
Tilt Runners	V-CAST® 418A	70.0	7.5	19.2	2.95	184	1705 / 3100
	V-CAST® 712A	80.7	4.2	11.8	3.21	203	1650 / 3000
	TEK-CAST 712A	78.7	5.2	12.2	3.07	192	1650 / 3000
Taphole Face & Inside	V-CAST® 133A	59.6	4.2	34.5	2.98	186	1650 / 3000

