



ALUMINUM Metal Contact Brick

HWI's ALCOR® 32 and DV-38® brands are industry standards for aluminum furnace metal contact. ALCOR® 60 was developed to provide the same superior aluminum resistance in a mullite-based composition.

UFALA® is HWI's standard for upper sidewalls and roofs for brick furnaces. This product is manufactured from high purity bauxitic kaolin and displays low porosity, very good hot strength, and good resistance to thermal shock and alkali attack.

CORAL BP® is used primarily in furnaces for the refractory anchors in roofs and upper sidewalls. These anchors have excellent abrasion resistance and high hot strengths for high temperature specifications.

BRICK - ALUMINUM CONTACT

ALCOR® 32

DV-38®

ALCOR® 60

BRICK - UPPER SIDEWALLS AND ROOF

UFALA®

BRICK - REFRACTORY ANCHORS

CORAL BP®

PHOSPHATE BONDING SYSTEM

The phosphate bonding system provides an inherently non-wetting to molten aluminum behavior while improving thermal shock and alkali resistance.

ALKALI RESISTANCE TESTING

The alkali resistance testing shows excellent results for all combinations of alkali salts for each of HWI's metal contact bricks. ALCOR® 60 receives a perfect score at all test temperatures as there is no alteration or cracking present.

ALUMINUM CUP TEST

Results from aluminum cup tests are excellent for all three of the products highlighted. Due to HWI's preferred aluminum resistant additive package, ALCOR® products lead the industry in aluminum contact applications.



**ALCOR® 60****ALCOR® 32****DV-38®**

CHEMICAL ANALYSIS

(Approx.) % Calcined Basis		ALCOR® 60	ALCOR® 32	DV-38®	UFALA®	CORAL BP®
Alumina	(Al ₂ O ₃)	58.3	82.3	80.2	59.0	82.3
Silica	(SiO ₂)	33.5	9.6	11.4	36.7	9.6
Phos. Pentoxide	(P ₂ O ₅)	2.4	3.6	4.6	--	3.7

PHYSICAL PROPERTIES

	ALCOR® 60	ALCOR® 32	DV-38®	UFALA®	CORAL BP®
Bulk Density, lb/ft ³	157	182	179	155	179
Modulus of Rupture, lb/in ² at 1500°F (816°C)	850	1500	3200	2300	1800
Hot Modulus of Rupture, lb/in ² at 1500°F (816°C)	1700	2200	4100	-	-
Cold Crushing Strength, lb/in ²	8000	10,000	18,000	-	11,000
Abrasion Loss, cc after 1500°F (816°C)	7.0	7.0	4.0	10.0	6.0
Apparent Porosity, %	14.8	15.5	14.2	15.0	15.7