

MORTAR FOR ANY INSTALLATION

HarbisonWalker International (HWI) manufactures a variety of mortars for a wide range of applications, service conditions, and purposes. All major chemistry types are represented, as well as bond types and shipping condition options. Popular brands are stocked in strategic locations and are noted in the following tables. HWI recommends that all mortars be stored in a dry place and maintained at 60-80°F prior to use.

Alumina-Silica

HWI PRODUCT	Al ₂ O ₃ (WT. %)	SHIPPING CONDITION	BOND TYPE	SHELF LIFE (DAYS)
* SAIRSET®	34.6	wet	air-set	180
* OVENZZ™ MORTAR	34.6	wet	air-set	180
SAIRBOND	40.2	dry	air-set	365
SAIRMIX-7	42.0	wet	air-set	180
MORTAR MIX 413	45.5	dry	air-set	365
HARWACO BOND® (WET)	48.3	wet	air-set	180
* MEXI-KOMO®	50.1	dry	heat-set	365
SAIRSET® 3000	50.6	wet	air-set	180
HARWACO BOND® (DRY)	51.7	dry	air-set	365
* GREENPATCH-421	53.4	wet	air-set	180
SATANITE	59.4	dry	heat-set	365
NO. 36 REFRACTORY CEMENT	66.5	wet	air-set	180
* PHOXBOND	75.6	wet	phosphate	90
NARPHOS® 85 MORTAR DRY	81.4	dry	air-set	365
* GREENSET®-85 P	81.6	wet	phosphate	180
* KORUNDAL® BOND	82.8	dry	air-set	365
GREFPATCH® 85	83.7	wet	phosphate	180
NARPHOS® 85 MORTAR	84.0	wet	phosphate	60
KORUNDAL® MORTAR	89.5	dry	heat-set	365
* GREENSET®-94 P	92.0	wet	phosphate	180
TAYCOR® 342 DRY MORTAR	96.0	dry	heat-set	365
TUFLINE® MORTAR	96.7	dry	phosphate	180
H-W® CORUNDUM BOND	98.3	dry	air-set	365

* Stocked products



BOND TYPES

Selecting a bond type is a critical decision when choosing a mortar. HarbisonWalker International's products offer three bonding options.

Air-Setting - takes a rigid set when dried over 230°F. Air-setting mortars help maintain the strength of the bond up to the temperature at which the ceramic bond takes effect.

Heat-Setting - develops a ceramic set with a strong bond only at high furnace temperatures. These mortars offer expansion flexibility during initial heating.

Phosphate - often grouped with heat-setting mortars, but these mortars see a chemical reaction occur at lower temperatures (500°-600°F) between the phosphoric acid and ceramic oxides. This reaction imparts high strength to the mortar joint and usually offers the best resistance to severe slag attack.

Alumina-Chrome

HWI PRODUCT	Cr ₂ O ₃ [WT. %]	SHIPPING CONDITION	BOND TYPE	SHELF LIFE (DAYS)
RUBY® MORTAR	9.3	wet	phosphate	120
RUBY® BOND	9.7	dry	air-set	180
SHAMROCK® 392 MORTAR	29.8	wet	phosphate	90
SHAMROCK® 392 DRY MORTAR	29.8	dry	phosphate	365
SHAMROCK® 394 DRY MORTAR	74.9	dry	heat-set	365
SHAMROCK® 394 MORTAR	75.7	wet	heat-set	90
AUREX® BOND 90	88.3	dry	phosphate	180

Magnesia

HWI PRODUCT	MgO [WT. %]	SHIPPING CONDITION	BOND TYPE	SHELF LIFE (DAYS)
NARMAG® MORTAR AIRSET DRY	75.4	dry	air-set	180
H-W® PERIBOND	78.7	dry	air-set	180
* NARMAG® CB MORTAR	89.3	dry	phosphate	180
NARMAG® MORTAR HEATSET	95.3	dry	heat-set	180

Silica

HWI PRODUCT	SiO ₂ [WT. %]	SHIPPING CONDITION	BOND TYPE	SHELF LIFE (DAYS)	COLOR
SILSET	96.8	dry	air-set	365	blue
VEGABOND®	99.0	dry	heat-set	365	blue
FUSIL® MORTAR	99.7	dry	air-set	365	blue

Alumina-Zirconia-Silica (AZS)

HWI PRODUCT	ZrO ₂ [WT. %]	SHIPPING CONDITION	BOND TYPE	SHELF LIFE (DAYS)	COLOR
ZIRMUL® 361 MORTAR	19.5	dry	heat-set	365	orange
ZIRMUL® 362 MORTAR	31.0	dry	phosphate	365	orange

Zircon

HWI PRODUCT	ZrO ₂ [WT. %]	SHIPPING CONDITION	BOND TYPE	SHELF LIFE (DAYS)	COLOR
TZ® 352 DRY MORTAR	60.0	dry	heat-set	365	yellow
TZ® 716 DRY MORTAR	62.0	dry	air-set	365	yellow
TZ® 351 DRY MORTAR	63.5	dry	heat-set	365	yellow
TZ® 702 DRY MORTAR	66.0	dry	heat-set	365	yellow

SHIPPING CONDITIONS

Refractory mortars are often available in wet or dry form. Each type presents advantages and disadvantages. Product selection can be based on installation requirements.

Wet - no mixing is required other than to remix any liquids that have separated. However, wet mortars are susceptible to freezing and will often have a shorter shelf life than dry mortars.

Dry - can have a shelf life of up to 365 days. Dry mortars are also more economical to ship, especially for large orders. The main disadvantage to dry mortars is the required addition of water and mixing.

CONSISTENCY

- Most mortars are available in troweling consistency.
- All mortars can be thinned to a dipping consistency by adding water and mixing. Mortars cannot be thickened.
- Specialty mortars made for patching, brushing, or anti-build up are also available.

* *Stocked products*