

Thermbond®

REFRACTORY SOLUTIONS

INSTALLATION GUIDE for THERMBOND 7206 & 7229 Products

Thermbond 7206	60% alumina castable.
Thermbond 7206-N	60% alumina castable, suitable for aluminum metal contact.
Thermbond 7229	50% alumina castable with 20% SIC addition.
Thermbond 7229-N	50% alumina castable with 20% SIC addition, suitable for aluminum metal contact.

Preparation

1. Use a paddle, pan (50 or 100 L) or Hobart type mixer with high torque for dense low cement refractory.
2. Check that all tools, mixer and vibrating equipment are in proper working condition and clean.
3. A good delivery plan is essential for moving and placing the 7206 and 7229 products.
4. Thermbond® 7206 and 7229 type products are mixed with water or 7200 Liquid, depending on placement method. If casting with water, only potable water should be used for mixing.

Mixing

1. For best results, material and ambient temperature should be between 60°F and 85°F (16°C and 29°C) during mixing, placing, and curing.
2. Water addition range is normally 4.5% to 6% of the dry material weight (see specific material technical data sheet). Water addition will change depending on the required flow-ability and the addition of stainless steel needles.

For 7206 and 7229 the water addition will also change for the placement method:

			Liquid Amount per Bag of dry Material		
Casting	4.5 – 5.5 %	Water	2.475 - 3.025 lb.	39.6 - 48.4 oz.	1.125 – 1.375 L
Ramming	4.5 – 5 %	7200 Liquid	2.475 - 2.750 lb.	39.6 - 44.0 oz.	1.125 – 1.250 L
Hand-pack	5.0 – 5.5 %	7200 Liquid	2.750 - 3.025 lb.	44.0 - 48.4 oz.	1.250 – 1.375 L
Dry Gunnite	5.5 – 7.0 %	7200 Liquid	n/a		
Pumping	5.0 – 6.0 %	Water	2.750 - 3.300 lb.	44.0 - 52.8 oz.	1.250 – 1.500 L
Shotcrete	5.0 – 5.5 %	Water + 7200 Accelerator	n/a		

3. For Placement other than casting, please, contact Unifrax for additional assistance.
4. Mix dry material for 30 seconds before adding water, add 80% - 90% of total water quantity quickly, watch for material to start folding upon itself and continue to mix for an additional 2 minutes.
5. Add remaining water, up to specified ratio and mix for another 5 to 7 minutes, until desired consistency.
6. Mixing time can vary depending on the size and type of mixer, normal mixing time is between 7 and 10 minutes.

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Placing

1. This material allows an extended placement/working time and can vary depending on ambient conditions.
2. Adjust vibrators for sufficient vibration to place, knit, and level the material. Do not over vibrate.

Setting

1. Total setting time for casting 7206 and 7229 series products will vary depending on the ambient conditions.
2. The 7206 and 7229 series material should be left undisturbed for 10 to 12 hours to allow the material to set before removing the forms.
3. Working time for ramming 7206 and 7229 products is approx. 45 minutes, but depends on local temperature.
4. No additional curing time is required after material is hard enough for form removal.

Extreme weather precautions

1. Extreme Cold Weather:

Keep the material, and installation area above 60°F (16°C) during installation and 12-hour to 24-hour setting period. Do not allow lining to freeze during setting. Material may take up to 24 hours to fully set in cold conditions. In some cases, warming the water up to 140°F (60°C) is recommended.

2. Extreme Hot Weather:

Keep the material, and installation area below 85°F (29°C) during installation. Elevated temperatures may reduce working time, and cause cracking due to surface dry out. Store the dry castable in a cool area prior to mixing. The material should be stored below 77°F (25°C) prior to the installation. Use cold water, less than 45°F (7°C) during mixing. Shade or water spray the exterior surface of the unit. It may be recommended to wet-cure the installed material (meaning to cover with plastic or wet burlap).

Preparing Test Samples

1. Completely pre-mix full bag of dry material in a Hobart mixer prior to mixing a test sample.
2. Contact Unifrax for the correct mixing water ratio!
3. Test specimens are to be dried according to ASTM/ISO procedures.

Please contact Unifrax for:

- Specific information regarding your application.
- Extreme weather conditions, below 40°F (5°C) or above 90°F (32°C).

If you have any questions or concerns, please contact your Thermbond® Representative OR consult our complete [Thermbond Installation Guide](#).