

USG™ Retarders



For slowing the setting time of conventional plasters, veneer plasters, lime finish plasters and setting-type joint compounds

- Three formulations meet a variety of setting requirements.
- Products easily disperse into mixing water for quick addition to plaster mix.
- USG™ standard-strength retarder recommended for slight to moderate lengthening of set times of plaster products and setting-type joint compounds.
- USG™ high-strength retarder provides 2 hours or more lengthening of set time of conventional plaster products.
- USG™ retarder for lime-containing plaster products is used with conventional lime/finish plasters and DIAMOND® brand veneer finish.

Description

USG retarders are additives that lengthen the setting time of gypsum plaster by slowing the chemical crystal formation that causes the gypsum plaster to set or harden.

USG offers three retarder products to meet a wide range of needs. USG standard-strength retarder is recommended for slight to moderate (30 to 45 minutes) lengthening of set times of veneer and conventional plasters as well as setting-type joint compounds. USG high-strength retarder provides 1 to 3 hours lengthening of set time, and is especially suitable for use with machine-applied conventional gypsum plasters. USG retarder for lime-containing plaster products is used with DIAMOND veneer finish, RED TOP® brand finish plaster and RED TOP gauging/lime finishes.

Limitations

- Excessive additions of retarder will drastically reduce strength, thereby impairing the integrity of the finish work.
- Excessive amounts may produce “dry-out”—the inability of plaster to set before the water necessary for chemical reaction evaporates.
- USG retarders should never be added directly to the plaster mix. While this practice may perform adequately, it is not recommended. The addition of dry retarder does not provide controlled dispersion as quickly or uniformly as retarder pre-mixed with water.

Directions

Prior to use of any additive, mix a trial batch of formulated product and determine the set time. Once the set time is known, a measured amount of USG retarder/water mixture is added to adjust the set. Any available container (wax cup, coffee can, measuring cup, etc.) can be used to measure the retarder/water mixture. Keep mixing equipment clean between batches to prevent altered setting in subsequent mixes.

USG Standard- and High-Strength Retarder

All retarders should be mixed with water before adding to plaster. Mix one teaspoon of dry USG standard-strength retarder with five fluid ounces of water to prepare a solution that will extend the set time of 100 pounds of gypsum plaster by 30-40 minutes or more. Mix one teaspoon of dry USG high-strength retarder with five fluid ounces of water to prepare a solution that will extend the set time of 100 pounds of conventional gypsum plaster by 1 to 3 hours.

For larger quantities, mix an entire 1-1/4 lb. container of either USG standard- or high-strength retarder with five gallons of water in a convenient size container to prepare the retarder solution. Slowly add retarder to the water and stir until dispersed. Screen out any retarder lumps that may have formed. These lumps would cause soft discolored spots in the plaster surface. Note that retarder is only dispersed in water and not dissolved, thus prolonged standing will allow the retarder to settle out. Always stir the retarder mixture before using. Poor dispersion increases the possibility of variable sets and soft unset spots in the plaster surface.

USG Retarder for Lime-Containing Plaster Products

Add directly to the mixing water prior to the addition of plaster. Once the proper amount of retarder is added, the water should be stirred to dissolve the retarder. As little as 1/4 to 1/2 teaspoon per 50 lb. bag of lime-containing plaster will extend the setting time by 20 minutes.

Cleanup and Storage

Clean mixing containers and tools with water immediately after use. Partially used containers should be closed as tightly as possible. Store material in a cool, dry place. Avoid direct sunlight. Maintain temperature above 40 °F (4 °C).

Product Data

Shelf Life: Up to 12 months under protected storage conditions. Rotate stock.

Availability: USG retarders are distributed throughout the United States. Contact a United States Gypsum Company sales office or sales person for additional information.

Packaging: USG standard- and high-strength retarders are available in 1.25 lb. containers. USG retarder for lime-containing plaster products is available in 1.5 lb. containers. USG standard-strength retarder is also available in 25 lb. and 5 gal. pails.

Submittal Approvals:

Job Name	
Contractor	Date

WARNING!

When mixed with water, this material hardens and becomes very hot – sometimes quickly. DO NOT attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue or amputation of limb. Hydrated lime and sodium hydroxide are strongly alkaline. Direct contact can cause severe damage or chemical burns to the eyes and skin. Avoid contact with eyes and skin. Wear eye protection, alkali-resistant protective gloves, long-sleeved shirts and pants to prevent direct contact.

If eye contact occurs, immediately flush thoroughly with water for 30 minutes and seek medical advice. Inhalation of dust may cause chemical burns or irritation to nose, throat and respiratory tract. Avoid breathing dust. Use in a well-ventilated area or provide sufficient local ventilation. If dusty, wear a NIOSH/MSHA-approved dust respirator. Wash thoroughly with soap and water after use. Do not ingest. If ingested, call physician. Product safety information: (800) 507-8899 or www.usg.com. **KEEP OUT OF REACH OF CHILDREN.**

Trademarks

The following trademarks used herein are owned by United States Gypsum Company: DIAMOND, RED TOP, USG.

Note

Products described here may not be available in all geographic markets. Consult your U.S. Gypsum Company sales office or representative for information.

Notice

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

Safety First!

Follow good safety and industrial hygiene practices during handling and installation of products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read material safety data sheets and related literature on products before specification and/or installation.

