

USG™ Retarders



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

- Three products provide for a variety of setting requirements.
- Products are easy to use—they are dispersed in mixing water for addition to plaster mix.
- USG™ Standard Strength Retarder is 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 Interior Finish.

Description

USG Retarders are additives that slow or lengthen the setting time of gypsum plaster. Retarder is added to the plaster in specific amounts during manufacture to provide a setting time that meets product and job needs for each type of material—basecoats, gauging plaster, veneer plaster, etc. When variations from normal job conditions occur, the journeyman may need to adjust the setting time to allow for proper application and finishing. USG Retarders slow down the chemical crystal formation that causes the gypsum plaster to set or harden.

USG has three retarder products that provide for 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 conventional gypsum plasters where machine application set time alteration is required. USG Retarder for Lime Containing Plaster Products is used with lime containing plasters, such as Diamond Brand Interior Finish, Red Top® Finish and 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

Application—General

Prior to use of any additive, good job practice involves mixing a trial batch of formulated product and determining 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. Also, it is a good practice to always keep the mixing equipment clean between batches to prevent quick-setting action from occurring in subsequent mixes.

Application—USG Standard or 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 the retarder is dispersed. Screen out any retarder lumps that may have formed. These lumps will 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.

Application—USG Retarder for Lime Containing Plaster Products

USG Retarder for Lime Containing Plaster Products should be added 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 and Cost: 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., 5-gal. pails.

Submittal Approvals:

Job Name		
Contractor		Date

Trademarks

The following trademarks used herein are owned by United States Gypsum or a related 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 installing 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.