

# SHEETROCK® MH Brand Setting-Type Joint Compound



## Develops higher strength more rapidly to reduce stress cracks during construction

- Rapid strength development during critical phases of construction.
- Sets quickly for fast joint finishing and rapid movement along assembly line.
- Reduced water demand for quicker drying time.
- Exceptionally strong bond; low shrinkage for flatter joints.
- Strong, crack-resistant joints on walls and ceilings.

## Description

SHEETROCK® MH Brand Setting-Type Joint Compound (TUF-SET™ High Early Strength) is a low-consistency, chemically hardening powder compound that is specifically designed for the time-sensitive requirements of Industrialized Construction. When applied over SHEETROCK® MH Brand Joint Tape (TUF-TAPE™), TUF-SET High Early Strength (HES) Compound produces the strongest and most crack-resistant joints possible. During the first critical half-hour after finishing the assembly, HES develops 40 to 50% more joint strength than regular compounds. Joints can be finished and decorated in a matter of hours.

## Limitations

- 1 Store joint compound bags in a cool dry place. Keep bags off the floor. Do not allow bags to get wet.
- 2 SHEETROCK® MH Brand Setting-Type Joint Compound (TUF-SET™ High Early Strength) is very difficult to sand smooth after drying. Smooth it before it hardens or while still in a damp but hardened state.
- 3 Hardening action cannot be delayed or prevented by dilution with water.
- 4 Not to be applied over wet surfaces or surfaces likely to become wet.

## Installation

### Mixing

Before mixing compound, position and apply SHEETROCK® MH Brand Gypsum Panels in accordance with manufacturer's recommendations. Make sure that mixing equipment is clean. Set compound from previous batches will shorten the working time of new material; high-strength formulations are more sensitive to contamination than lightweight setting-type joint compounds. Use only clean, drinkable water. Also, over-mixing or mixing at too high a speed can shorten set times and entrain air in the mixture. Limit mixer speed to 400 rpm maximum under no-load conditions.

Place 6 pints of water in a clean 5-gallon pail. Sift in one bag (25 pounds) of TUF-SET™ High Early Strength powdered compound and mix for approximately 30-45 seconds, or until relatively smooth. Allow the compound to stand (soak) for one minute, then remix the material and adjust the viscosity using a maximum of 1/2 to 1 pint of water. Stir until consistency is smooth and uniform.

**Note:** The cooler the conditions, the longer the soak-time needed. If the compound thickens during application before setting, allow a longer soak-time. Do not add too much water during mixing. High-strength compounds thin quickly.

### Application

Keep air, water, mix, and surface temperatures at a minimum 55 °F until joints are completely dry. Apply SHEETROCK MH Brand Joint Tape (TUF-TAPE) to joints. Apply compound with a 6" to 10" drywall knife/trowel, completely filling the flat joints. Feather butt joints approximately 14" wide. On the first compound application over the tape, be sure to force the compound completely through the tape to completely fill and level the joint. Failure to completely fill the joint may result in cracking. Apply compound to corners conventionally and smooth with a corner tool. Apply compound to corner beads and fastener heads. Allow to harden. As soon as possible after the compound stiffens, shave off tool lap marks and other protrusions using a drywall knife as a plane.

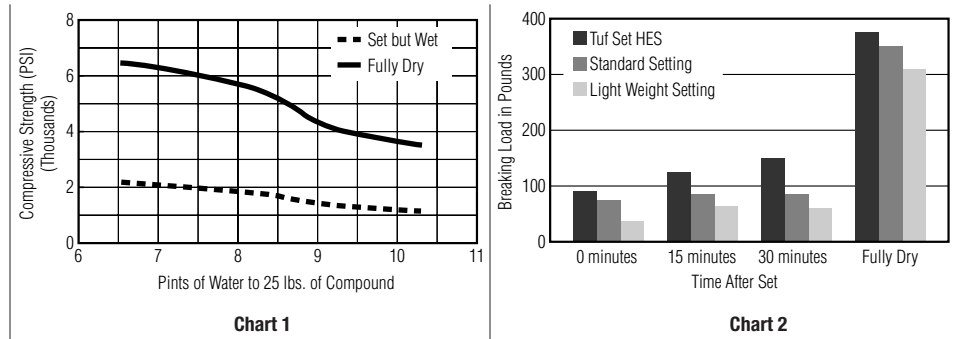
SHEETROCK® MH Brand Setting-Type Joint Compound (TUF-SET™ High Early Strength) is nearly impossible to sand after setting. If additional coats of compound are required to achieve higher levels of finish appearance, use a lightweight setting-type compound such as SHEETROCK® MH Brand Lightweight Setting-Type Joint Compound (TUF-SET™ Lite) or SHEETROCK® Brand Lightweight Setting-Type Joint Compound (EASY SAND™). Apply additional coats after the first coat has set (hardened). Use 10" or 12" drywall knife over flat joints. Feather butt joints to width of 16" to 20". Allow as much time as practical between coats to facilitate drying.

Painting and texturing are not recommended before compound has set (hardened). For best decorating results, apply a prime coat of SHEETROCK® Brand First Coat or an undiluted, good quality interior latex flat wall paint with high solids content once joint compound has set. Allow prime coat to dry before painting or texturing. Note: Vapor retarder (VR) paints may be used in place of the drywall primer. However, experience has shown that certain VR paint formulations interfere with the setting action of joint compounds. This will lead to low strength, and can cause stress cracking. Make sure the joint compound is fully set before applying VR paints.

**Product Data**

The strength development of setting-type joint compounds is related to the amount of water added to form a workable mix. TUF-SET HES has been carefully formulated to provide excellent working characteristics with minimal water demand. The more water a setting-type joint compound contains, the weaker the finished joint will be. Adding water beyond the recommended levels will reduce compound strength up to 45%, and will also increase drying time.

Chart 1 illustrates the relationship between the amount of water added to dry setting compounds and the strength developed in the set material. Chart 2 shows the rapid strength development of TUF-SET HES in comparison with standard and lightweight setting-type compounds.



**Color:** Light gray to white.

**Binder:** Vinyl.

**Filler:** Calcium sulfate.

**Dilution: (water)** 6-7 pts. per 25 lbs. (2.8-3.3 L per 11.3 kg).

**Freezing Sensitivity:** Once compound has set (it need not be completely dry), there is no freezing sensitivity.

**Coverage:** 40 to 50 lb. /1000 ft.<sup>2</sup> (20 to 24 kg/100 m<sup>2</sup>) of gypsum panels.

**Storage:** Close open bags as tightly as possible and store in a dry place.

**Shelf Life:** Up to 6 months under protected storage conditions.

**Packaging/Compound:** 25 lb. (11.3 kg) bag.

**Packaging/Tape:** 250 ft. (76 m) roll.

**Contains no Asbestos**

**Working and Setting Time:** One of the most important considerations when choosing a setting-type compound for a particular situation is matching working-time and setting-time ranges to the cycle-time of the production line in question. Remember that working time and setting time are NOT the same. *Working time* refers to the period during which compound is suitable for application; at the end of this time, the material begins to stiffen and can no longer be spread smoothly. *Setting time*, on the other hand, refers to the time after which compound will become sufficiently hardened so that another coat may be applied, or so that the assembly may be moved. You must take *both* ranges into account when choosing the product to use on a specific line. The working time range should correspond to the application time needed, while the setting time range should match your schedule for moving an assembly along the line.

For USG's SHEETROCK MH Brand Joint Compounds, the following chart provides the working- and setting-time ranges that correspond to specific grades of compound. (Because it is physically impossible to control setting-time characteristics to the exact minute, time *ranges* are typically used when discussing setting-type joint compounds.)

| Working and Setting Time Ranges (in minutes) |              |              |
|--|--------------|--------------|
| Grade  | Working Time | Setting Time |
| 15   | 7-12         | 10-18        |
| 20   | 10-20        | 15-25        |
| 30   | 15-30        | 25-35        |
| 45   | 25-50        | 35-55        |
| 60   | 40-80        | 55-85        |

**WARNING**

When mixed with water, this material hardens and then slowly becomes hot. DO NOT attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions may cause severe burns that may require surgical removal of affected tissue. Avoid inhalation of dust and eye contact. Dust generated by sanding may cause eye, skin, or respiratory tract irritation. Use wet-

sanding to avoid creating dust. If dusty, wear a NIOSH/MSHA-approved dust respirator. Prolonged and repeated exposure to mica may cause lung disease. Wear eye protection. If eye contact occurs, flush thoroughly with water for 15 minutes. If irritation persists, call physician. If ingested, call physician. Product safety information: (800) 507-8899. **KEEP OUT OF REACH OF CHILDREN.**

**Trademarks:**

The following trademarks used herein are owned by United States Gypsum Company: EASY SAND, SHEETROCK, TUF-SET, TUF-TAPE.

**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:**

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