

# the CONCRETE INFORMER

## The Seasons are Changing, Are You Prepared?



### SAKRETE® Tube Sand

Available in two convenient sizes. Tube sand is ideal for traction in slick conditions, additional weight in vehicles and flood control.

- 70 lb. Re-sealable, polywoven bags, 36 per pallet
- 50 lb. Re-sealable, polywoven bags, 50 per pallet



### SAKRETE® Fast Set Concrete

*Rapid-Set Concrete Mix*

A fast setting, pre-blended, ready to use mixture of concrete sand, pea gravel and portland cement. The rapid-setting formula is ideal for use where the job must be completed quickly, which makes it a good choice for use in cold weather. Unlike normal concrete mixes, Fast Set Concrete allows pouring of sidewalks and walking on it in the same day.

- 50 lb. bags, 63 per pallet



### Rocky Mountain Wood Pellets

Made from trees killed by the Mountain Pine Beetle; wood pellets are a truly renewable resource and leave a zero carbon foot print.

- 40 lb. bags, 50 per pallet

## Cracks in Slabs and Pavements

We have all heard people say that *all* concrete cracks. That's not really true, but it is true that concrete slabs frequently have cracks. When talking about cracks it helps to have a common understanding of what kind of crack it is and what caused the crack.

- **Crack Width:** First, we need to know how wide the crack is. Although there are more sophisticated ways, a simple clear plastic crack comparator is often all that's needed. For cracks through the concrete, it is also important to know if the crack is "active" or moving.



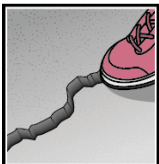
- **Plastic Shrinkage Cracks and Crazing:** These are fine, shallow cracks caused by drying shrinkage of the surface when the concrete is still "plastic" before it has hardened. Plastic shrinkage cracks are usually parallel while crazing cracks are intersecting. Crazing is a result of poor surface curing and only visible in hard troweled slabs. These cracks have little impact on durability.



- **Shrinkage Cracks:** As the concrete slab dries after placement, it shrinks. Contraction joints, when cracked, are really just straight shrinkage cracks. Similar "uncontrolled" cracks, sometimes due to poor joint layout, meander across the surface. They are not usually detrimental to the performance of the concrete but may be aesthetically objectionable to the owner.



- **Offset Cracks:** If there is an elevation differential across the crack, that's usually due to a poorly consolidated base or a tree root growing beneath the concrete. The crack may be a shrinkage crack or due to inadequate support from beneath. Typically these cracks will need to be repaired for safety reasons.



- **Diagonal Corner Cracks:** Cracks at the corner of slabs or at a joint intersection are caused by curling or warping of the panel or by overloading the slab. As a vehicle drives over the curled up corner, with no support beneath, it breaks off. Curling is caused by a temperature differential between the surface and bottom of the slab while warping is from a moisture differential.



- **D-Cracking:** These are a series of cracks parallel to a joint. D-cracks are due to moisture infiltration through the joint and into certain concrete aggregates that will crack under freeze-thaw conditions. Since the concrete near the joint is often saturated, freezing begins to crack the aggregates and concrete. D-cracking is a terminal condition - there is no cure.



## Company News

### Holiday Hours

November 26<sup>th</sup>: Close at Noon  
November 27<sup>th</sup> - 28<sup>th</sup>: CLOSED

December 24<sup>th</sup>: Close at Noon  
December 25<sup>th</sup> - 26<sup>th</sup>: CLOSED

January 1<sup>st</sup> - 2<sup>nd</sup>, 2015: CLOSED

*Happy Holidays from all of  
us here at US MIX!*



### Protect your Products

It's that time of the year where the weather keeps us guessing. Whether it's rain, snow or a bright, sunny day be prepared and remember these tips to keep your products safe:

- Always read Data Sheets to determine proper storage and storage temperatures for your products
- Store products in a dry place, slightly off the ground
- Keep pallets of product covered, if outdoors
- Remind drivers to tarp loads to prevent moisture from entering bags on the road

Moisture inside bags of cementitious products can ruin the product. Protect your products this fall and winter.



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## Do You Know? Mortar - The Basics



Cement mortar is a mixture of cement, lime and sand and is typically used in the construction of brick or block walls. The prime function of mortar is to bond the individual

masonry units into a consolidated mass. ASTM C270 is the Standard Specification of Mortar for unit masonry, which covers mortars for use in the construction of non-reinforced and reinforced unit masonry structures. Although mortar has similar ingredients as those found in concrete, these two building materials are very different and should not be used interchangeably. Mortar has lower strengths than concrete, it must have the ability to retain water and it has a high air content.

The three most commonly used types of mortar are types M, S and N. Type M has an average compressive strength

of 2500 psi; Type S 1800 psi; Type N 750 psi. Type M is used only in special applications requiring high strength mortar. Type S is the most versatile and effective and can be used both above and below grade. Type N is typically limited to above grade construction. A good way to remember the different types of mortar and their strengths (from highest to lowest) is to spell out the word **M • A • S • O • N**. Type M has the highest strength value followed by S then N.

Mortar can be made in two ways. The first way is to mix portland cement with hydrated lime and fine sand. The second way is to make a mixture of masonry cement with fine sand. Either method is acceptable and it is the personal preference of the mason on which method they prefer to use.

For further information on cement mortars or assistance in determining what product is suitable for your application, please contact the office at 303-778-7227.