

CITY OF SAN ANGELO
ITEM 264
LIME AND LIME SLURRY

264.1. DESCRIPTION.

This Item establishes the requirements for hydrated lime, quicklime and commercial lime slurry

CAUTION: Use of quicklime can be dangerous. Users should become informed of the recommended precautions in the handling, storage and use of quicklime.

264.2. TYPES.

The various types and grades are defined and identified as follows:

- (1) **Type A, Hydrated Lime**, a dry powdered material consisting essentially of calcium hydroxide.
- (2) **Type B, Commercial Lime Slurry**, a liquid mixture of essentially hydrated lime solid and water in slurry form.
- (3) **Type C, Quicklime**, a dry material consisting essentially of calcium oxide. It shall be furnished in either of two grades which differ in sizing.

Grade DS, “pebble” quicklime of a gradation suitable for use in the preparation of a slurry for “Wet Placing”.

Grade S, finely graded quicklime for use in the preparation of slurry for wet placing. (Note: Due to the possibility of appreciable amounts of finely divided, powdered quicklime being present in this product, the use of Type C, Grade S Quicklime is restricted to “Slurry Placing” only. It is considered to be unsuitable for “Dry Placing”.

264.3. GENERAL:

Lime shall be applied as provided for in the governing specifications, as a dry material or as a mixture of lime solids and water in the form of lime slurry.

For dry application, Type A Hydrated Lime or Type C, Quicklime of Grade DS only may be used where specifications permit.

For wet application, lime slurry may be delivered to the job site as Type B, Commercial Lime Slurry or a lime slurry may be prepared at the job site or other location approved by the City, by using Type A Hydrated Lime or Type C Quicklime as specified.

The lime and lime slurry being furnished under the terms of this specification shall, in addition to all other requirements, also meet the following chemical and physical requirements.

Chemical and Physical Requirements for Lime and Lime Slurry

Chemical:	Type		
	A	B	C
Total "active" lime content, % by wt (i.e., % by wt Ca(OH) ₂ + % by wt CaO, if present)	90.0 min*	87.0 min**	-
Unhydrated lime content, % by wt CaO:	5.0 max	-	87.0 min
"Free Water" content, % by wt H ₂ O:	5.0 max	-	-
Physical:			
<i>Wet sieve requirement, as % by wt residue:</i>			
Retained on No. 6 (3360 Micron) sieve:	0.2 max	0.2 max**	8.0 max***
Retained on No. 30 (590 micron) sieve:	4.0 max	4.0 max**	-
<i>Dry sieve requirement, as % by wt residue:</i>			
Retained on a 1-inch (25 mm) sieve:	-	-	-
Retained on a 3/4 inch (19.0) mm sieve:	-	-	10.0 max
Retained on a No. 100 (150 micron) sieve:	-	-	Grade DS- 80% min Grade S-No Limits

Note * No more than 5.0% by weight CaO (unhydrated lime) will be allowed in determining the total "active" lime content.

Note ** In "solids content" of the slurry.

Note *** The amount of total "active" lime content, as CaO, in material retained on the No. 6 sieve must not exceed 2.0 percent by weight of the original Type C lime.

Type B, Commercial Lime Slurry or a slurry prepared at the job site from Type A Hydrated Lime or Type C Quicklime shall be furnished at or above the minimum “Dry Solid” content as approved by the City and must be of a consistency that can be handled and uniformly applied without difficulty. The slurry shall be free of liquids other than water and any materials of a nature injurious or objectionable for the purpose intended.

264.4 SAMPLING AND TESTING.

The sampling and testing of lime shall be determined by test Method Tex-600-J, “Lime Testing Procedure” / NA.

264.5 MEASUREMENT AND PAYMENT.

Lime will be measured and paid for in accordance with the governing specifications for the items of construction in which lime is used.