



LATICRETE and OSHA Respirable Crystalline Silica Regulations TDS 291

On June 23, 2016, Occupational Health and Safety Administration (OSHA) the Safety and Health Regulations for Construction, Subpart Z, Toxic and Hazardous Substances, Respirable Crystalline Silica (Standard Number 1926.1153) went into effect. This important regulation is designed to minimize exposure to respirable crystalline silica in the workplace thereby protecting workers from cancer, silicosis and other conditions that can result from exposure. Enforcement of 1926:1153 by OSHA began on September 23, 2017.

OSHA 1926.1153 applies to all occupational exposures to respirable crystalline silica in construction work, except where exposure will remain below 25 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) as an 8 hour time weighted average (TWA) under any foreseeable conditions.

LATICRETE has had independent testing done to determine if any respirable silica becomes airborne when using any LATICRETE thin-set, mortar or other sand based material. The OSHA Action Level (maximum safe level) is $25 \mu\text{g}/\text{m}^3$ for an 8 hour TWA. The results of the testing state that when LATICRETE products are used in accordance with the written instructions;

Contains no respirable silica levels that exceed the OSHA action level*.

* OSHA action level set forth in OSHA's Respirable Crystalline Silica (RCS) standard for construction, 29 CFR 1926.1153, as certified by an independent laboratory to be below the OSHA action level for respirable crystalline silica. Please visit <https://laticrete.com/silica> for more information.

Please note that the information above does not mean that the use of personal protection equipment (PPE) is unnecessary for any particular project or jobsite. The creation and implementation of PPE protocol (including individual company safety programs) must be considered to meet jobsite requirements and conditions and/or by local regulations. Please check with the appropriate authorities to determine the proper course of action regarding PPE requirements and usage.

- To read or download a copy of OSHA 1926.1153, please go to; https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=1270
- To find other information on respirable silica guidelines, regulations and fact sheets, please go to; <https://www.osha.gov/pls/publications/publication.athruz?pType=Industry&pID=192>

PARTICLE SIZE DISPERSION IN LATICRETE PRODUCTS

LATICRETE uses 3 basic sand grade types in our products: fine, medium and coarse. Each of these grades uses a combination of blended sand sizes to achieve the desired physical performance properties of each manufactured product along with easier workability and feel for the installer. The sand blends vary from plant to plant for each grade size and are based on availability from local sand sources. All sieve testing is performed following ASTM C136 “Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates” and the sieves conform to ASTM E11 “Standard Specification for Woven Wire Test Sieve Cloth and Test Sieves”.

The table below is a summary of sand grades used at all LATICRETE facilities combined (not all sand sizes are used at every LATICRETE plant). The table also shows particle sizes of different form specific raw materials (e.g. titanium dioxide (TiO₂) or ferric (iron) oxide (Fe₂O₃) which may be present in LATICRETE products:

Sieve Mesh Size	Microns* (micrometers)	Fine Sand	Medium Sand	Coarse Sand
#20	850	-	0.0 – 0.3%	6.0 – 45.0%
#25	710	-	-	1.0 – 35.0%
#30	600	0.0 – 0.3%	0.0 – 0.22%	0.0 – 45.0%
#35	500	-	-	0.0 – 11.0%
#40	425	0.0 – 1.0%	0.0 – 26.0%	0.0 – 32.0%
#50	300	0.0 – 20.0%	9.0 – 46.0%	0.0 – 14.0%
#60	250	-	0.0 – 28.0%	-
#70	212	3.0 – 60.0%	15.0 – 50.0%	0.0 – 4.5%
#100	150	30.0 – 70.0%	9.0 – 46.0%	0.0 – 1.4%
#140	106	3.0 – 37.0%	0.0 – 22.0%	0.0 – 0.5%
#200	75	0.0 – 17.0%	0.0 – 5.0%	0.0 – 0.2%
#270	53	0.0 – 37.0%	0.0 – 1.03%	0.0 – 0.1%
Pan	<53	0.0 – 0.15%	0.0 – 0.06%	0.0 – 0.005%

* 1,000 microns = 1mm

Respirable particles have aerodynamic diameters less than 10 microns. The mesh size to determine 10 micron particles is #1250.

Technical Data Sheets are subject to change without notice. For latest revision, check our website at <https://laticrete.com>
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