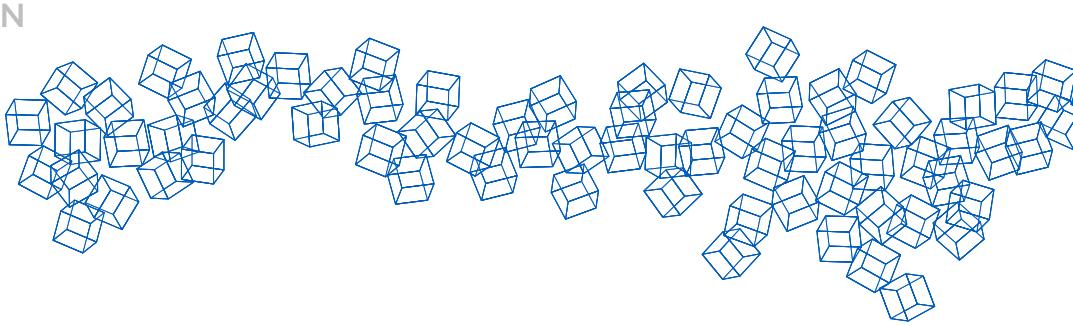
MAPEI®



MAPEI products and OSHA's silica standard

In October of 2017, new OSHA thresholds for workplace exposure to respirable crystalline silica were put in place by the Occupational Safety and Health Administration (OSHA). The new standard lowers the permissible exposure limit (PEL) for respirable silica to 0.05 mg/m^3 with an action level (AL) of 0.025 mg/m^3.

To provide objective data to our customers, MAPEI has conducted jobsite testing of several of its products that contain up to 75% silica sand (and that are representative of the family of other MAPEI products containing silica). These tests were conducted while these products were being poured and mixed with water during an 8-hour period. An independent lab report is attached to this bulletin that provides much more information concerning the testing conducted and workplace conditions existing at the time of the test.

The results of this testing indicate that pouring and mixing these powdered mortar and patching products do not, when considered alone, introduce sufficient amounts of respirable crystalline silica into the workplace to cause employees to exceed the AL or PEL under the new OSHA guidelines. The jobsite results were much less than the AL. Actual and predicted results for various MAPEI products containing silica are as follows:

Product	Silica sand, minimum	Silica sand, maximum	Respirable crystalline silica – predicted 8-hour exposure	Actual results*
Mapecem® Quickpatch	50%	75%	< 0.025 mg/m^3	0.0061 mg/m^3
Kerabond® T	50%	75%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested
Ultraflex LHT®	50%	75%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested
Ultraflex™ 2	50%	60%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested
Ultraflex 3	50%	60%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested
Ultraflor™ Plus	50%	60%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested
Ultraflex™ LFT™	40%	60%	< 0.025 mg/m^3	0.0059 mg/m^3
Ultracontact®	40%	60%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested
Ultraflex RS	40%	60%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested
Ultraflex LFT Rapid	20%	40%	<0.025 mg/m^3	Product is included for comparison to the results for products tested
MAPEI Ultralite™ S2	20%	40%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested
MAPEI Ultralite S1 Quick	5%	10%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested
Planipatch®	0.49%	1%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested
Planiprep™ SC	0.25%	0.49%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested
MAPEI Ultralite Mortar Pro	0.25%	0.49%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested
MAPEI Ultralite Mortar	0%	0%	< 0.025 mg/m^3	Product is included for comparison to the results for products tested

** Actual results are for one particular jobsite under those specific conditions noted in the lab report. Your results may differ.*

Please note that respirable crystalline silica can also be emitted by ingredients such as Portland cement. All maximum and minimum levels are derived from our Safety Data Sheets (SDSs) available at the time this technical bulletin was generated. We list a range on our SDSs because these products are manufactured at multiple facilities throughout the United States. The predicted exposure is based on best practices for mixing – adding powder to water in the bucket, pouring from a minimum distance above the bucket, and mixing at 300 rpm or less.

The above chart should allow employers to focus on more significant sources of respirable crystalline silica when developing their written exposure control plan.

For more information, visit https://www.osha.gov/dsg/topics/silicacrystalline/.

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