



MILWAUKEE TOOL

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To Whom It May Concern,

Milwaukee®, in partnership with Industrial Hygiene Sciences, LLC, has conducted testing on the Milwaukee AIR-TIP™ Bucket Topper Dust Collector (49-90-2041) with the Milwaukee M18™ FUEL™ 2-Gallon Wet/Dry Vacuum with PACKOUT™ Compatibility (0970-20) with HEPA Filter (49-90-1900). Results show that the user will be below the Permissible Exposure Limit (PEL) as described by OSHA 29 CFR 1926.1153 when using the above combination, assuming it is used in accordance with manufacturer's instructions. Testing results and procedures are outlined below:

Units Tested	Average Sample Duration	% Silica (Quartz) in Sample	Average Respirable Crystalline Silica Concentration ($\mu\text{g}/\text{m}^3$)	OSHA PEL in 1926.1153 ($\mu\text{g}/\text{m}^3$)
	60 minutes	< 4.2%	<2.5 $\mu\text{g}/\text{m}^3$ TWA	50 $\mu\text{g}/\text{m}^3$

- The same employee did all 3 trials.
- Task: Employee knelt in front of bucket that sat on a scale. Cut open 25 pound paper bags of TEC AccuColor Premium Sanded Grout (various colors) with scissors and poured 5 pounds of grout into a 5 gallon bucket. A second employee removed the bucket and put an empty bucket in place. 16 buckets filled. No dumping of the filled buckets during the sample time.
- She wore an N95 filtering facepiece respirator, gloves, safety glasses and ear muffs.
- Samples were collected on 3 piece 37 mm diameter preweighed PVC filter mounted in a BGI GK2.69 respirable dust sampler, run at 4.2 lpm and connected to a GilAir Plus air sampling pump.
- The flow rate through the sampling train was measured using a TSI 4146 Calibrator before and after each Trial.
- A field blank was submitted with batches of samples.
- The samples and blank were analyzed using OSHA ID-142 by the Wisconsin Occupational Health Laboratory, an AIHA Accredited Laboratory.
- The sampling method meets the definition of respirable crystalline silica in 1926.1153 (a) and Appendix A of the OSHA Respirable Crystalline Silica Standard (1926.1153).
- Work was performed in a room with no outside ventilation.
- The room door was closed.
- An ambient air cleaner with HEPA filtration was used between each trial to clean the air.
- The Time Weighted Average (TWA) was calculated assuming zero exposure to respirable crystalline silica for the non-sampled portion of a 480 minute (8 hour) shift. Longer exposure times, assuming that the dust exposures would be similar to those collected in this trial, would likely result in a higher TWA. Factors, including, but not limited to, the ventilation and air flow patterns in the space where the work is done; bag opening, handling and disposal practices; the presence of other respirable silica dust generating activities in the area; housekeeping practices; and vacuum maintenance could affect actual user exposures.

It is the responsibility of the user to operate the tool in accordance with manufacturer's instructions. For the latest listings of approvals, visit milwaukeetool.com. For technical or service assistance, contact Milwaukee Customer Service at 1-800-729-3878.