

OSHA 29 CFR § 1926.1153

Objective Data Testing

DEWALT Rotary Hammer Drills with integrated dust extraction

DEWALT has performed testing on rotary hammer drills with integrated dust extraction system to determine the operator's exposure level to respirable crystalline dust in accordance with EN 50632-1 and EN 50632-2-6¹. The purpose of the test was to produce "Objective Data" to be used as part of the exposure assessment requirements of 29 CFR §1926.1153(d)(2)(ii), when the task is performed under the same conditions as during this test.

Testing conditions:

- Test duration: 1 hour.
- Test room size: 7,5m x 7,0m x 4,4m. Closed, no air exchange.
- Sampler: 10 l/min GSP pump, FSP sampler. ISO 7708 compliant. 5 µm filter.
- Base material: Concrete.
- Holes drilled: 75.
- Drilled holes dimensions: Ø5/8" x 2".
- Dust box emptied every 8 holes.

Result:

Equipment tested	Time-Weight Average Respirable Silica Dust Exposure ^{2,3}
DCH273 20V d.c., rotary hammer drill with D25303DH, dust extraction	44 µg/m ³

Examples would include the following executions:

D25303DH
DCH273 + D25303DH
DCH273P2DH

¹ Exception: EN 50632-2-6 specifies drilling one hundred twenty Ø16mm x 50mm holes and the monitor equipped with an 8 µm filter.

² The silica content of the base material varies. As a result, the silica content in respirable dust samples also varies. The above-published exposure value is based on a 20% silica content applied to the total respirable dust measurement.

³ Exposure value represents the time-weighted average (TWA) over the 1-hour test period. Due to the test being conducted in a closed, non-ventilated room, this TWA exposure value would increase if the test duration was extended under the same conditions.