OSHA Table 1 Quick Reference Guide

Specified Exposure Control Methods for Silica in Construction (29 CFR 1926.1153)

This guide summarizes OSHA's Table 1 control methods for construction tasks that generate respirable crystalline silica. When fully and properly implemented, these controls keep exposures below the PEL (50 µg/m³).

CUTTING OPERATIONS

Equipment / Task	Engineering Controls	Respiratory Protection
Stationary masonry saws	Integrated water delivery system that continuously feeds water to the blade	None required
Handheld power saws (any blade diameter)	Integrated water delivery system that continuously feeds water to the blade	**Outdoors:** None required **Indoors/enclosed:** APF 10
Handheld power saws (blade ≤ 4 inches)	Commercially available shroud and dust collection system	**Outdoors:** None required **Indoors/enclosed:** APF 10
Walk-behind saws	Integrated water delivery system that continuously feeds water to the blade	None required
Drivable saws	Integrated water delivery system that continuously feeds water to the blade	**Enclosed cab:** None **No cab:** APF 10

DRILLING OPERATIONS

Equipment / Task	Engineering Controls	Respiratory Protection
Handheld and stand-mounted drills (including impact and rotary hammer drills)	Commercially available shroud or cowl with dust collection system **OR** Integrated water delivery system	None required
Dowel drilling rigs for concrete	Commercially available shroud or cowl with dust collection system	None required when operating outdoors
Rig-mounted core saws or drills	Integrated water delivery system that supplies water to cutting surface	None required
Vehicle-mounted drilling rigs (rock/concrete)	Integrated water delivery system **OR** Dust collection system with HEPA filter	**Enclosed cab:** None **No cab:** APF 10

GRINDING, CHIPPING AND DEMOLITION

Equipment / Task	Engineering Controls	Respiratory Protection
Handheld grinders for mortar removal (tuck pointing)	Commercially available shroud and dust collection system	**Outdoors:** APF 10 **Indoors/enclosed:** APF 25
Handheld grinders for uses other than mortar removal	Commercially available shroud and dust collection system **OR** Integrated water delivery system	**Outdoors:** None required **Indoors/enclosed:** APF 10

Walk-behind milling machines and floor grinders	Integrated water delivery system that continuously feeds water to cutting surface	None required when used outdoors
Small (handheld) milling machines/scarifiers	Commercially available dust collection system with HEPA filter	None required
Jackhammers and handheld powered chipping tools	Water delivery system that supplies continuous stream/spray of water at point of impact	**Outdoors:** None required **Indoors/enclosed:** APF 10
Heavy equipment / utility vehicles (demolition, grading)	Enclosed cab **OR** Wet methods	**Enclosed cab:** None **No cab (wet):** None

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CRUSHING, MIXING AND ABRASIVE BLASTING

Equipment / Task	Engineering Controls	Respiratory Protection
Crushing machines	Use equipment with integrated water spray to suppress dust	None required
Heavy equipment / utility vehicles (for haulage / dumping)	Enclosed cab	None required
Abrasive blasting (using silica sand)	Abrasive blasting enclosure with dust collection Ventilated booth	Continuous flow SAR (Type CE) blasting helmet / hood **OR** Pressure demand SAR
Mixing concrete or mortar (bagged silica materials)	Ventilated enclosure or isolation **OR** Wet mixing to minimize dust	APF 10 when not fully enclosed

RESPIRATOR KEY

Designation	Respirator Type	Examples
APF 10	Air-purifying respirator with assigned protection factor of 10	N95 filtering facepiece (dust mask) Half-mask with N95/P100 filters
APF 25	Powered air-purifying respirator (PAPR) with APF of 25	Loose-fitting PAPR with HEPA filter
APF 50	Air-purifying respirator with assigned protection factor of 50	Full facepiece with N100/P100 filters
Type CE SAR	Continuous flow supplied-air respirator for abrasive blasting	Abrasive blasting hood with continuous air supply

IMPORTANT REQUIREMENTS FOR TABLE 1 COMPLIANCE

To use Table 1, you must:
- Fully and properly implement the control measures
- Use respiratory protection as specified
- Ensure equipment is operated and maintained per manufacturer instructions
- Provide training on silica hazards and controls

Prohibited Practices:
- **Dry sweeping or dry brushing**
- **Use of compressed air for cleaning**
- **Operating without required water or dust collection**
- **Using damaged or malfunctioning equipment**

ADDITIONAL NOTES

• **Indoors or enclosed areas** = lack of fresh air movement. Higher respiratory protection often required.

• **Enclosed cab** = cab with HEPA-filtered, climate-controlled, positive pressure air supply.

• **Dust collection systems** must maintain airflow per manufacturer specs; use HEPA or high-efficiency filters.

• **Water delivery systems** must continuously supply water at point of operation to suppress dust.

• **Medical surveillance** required for employees who wear respirators 30+ days per year.

• **Alternative methods:** If Table 1 controls aren't feasible, conduct exposure assessment to determine appropriate controls.

OSHA PEL for Respirable Crystalline Silica: 50 µg/m³ as an 8-hour TWA
Action Level: 25 µg/m³ (triggers medical surveillance requirements)

This quick reference guide is a summary of OSHA's Table 1 from 29 CFR 1926.1153. For complete requirements, consult the full standard. This guide does not include all Table 1 entries or all regulatory requirements. First Underwriters Insurance Brokers recommends consulting OSHA's official guidance and a qualified safety professional.