

**TABLE 1****OSHA's RESPIRABLE CRYSTALLINE SILICA STANDARD FOR CONSTRUCTION****Required Respiratory Protection and Minimum Assigned Protection Factor (APF)**

Equipment / Task	Engineering and Work Practice Control Methods	Required Respiratory Protection and Minimum Assigned Protection Factor (APF)	
		≤ 4 hours / shift	> 4 hours / shift
Stationary masonry saws	Use of integrated water delivery system Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
Handheld power saws (any blade diameter)	Use of integrated water delivery system Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	APF 10
		APF 10	APF 10
Walk-behind saws	Use of integrated water delivery system Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
		APF 10	APF 10
Rig-mounted core saws or drills	Use of integrated water delivery system Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
Handheld and stand-mounted drills (including impact and rotary hammer drills)	Use with commercially available shroud or cowling dust collection system Operate in accordance with Manufacturer instructions to minimize dust. Must provide the air flow recommended by the tool manufacturer and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. Use of HEPA-filtered vacuum when cleaning holes	None	None
Dowel drilling rigs for concrete	For tasks performed outdoors only: Use with commercially available shroud or cowling dust collection system. Dust collector must have a filter with 99% or greater efficiency and a filter-cleaning system. Use a HEPA-filtered vacuum when cleaning holes.	APF 10	APF 10

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		≤ 4 hours / shift	> 4 hours / shift
Jackhammers and handheld powered chipping tools	Use of integrated water delivery system <ul style="list-style-type: none"> <li>▪ When used outdoors</li> <li>▪ When indoors or in an enclosed area</li> </ul>	None	APF 10
	OR Use tool equipped with commercially available shroud or cowling dust collection system Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the tool manufacturer or greater and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. <ul style="list-style-type: none"> <li>▪ When used outdoors</li> <li>▪ When indoors or in an enclosed area</li> </ul>	APF 10	APF 10
Handheld grinders for mortar removal (i.e., tuckpointing)	Use grinder equipped with commercially available shroud and dust collection system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanics.	APF 10	APF 25
Handheld grinders for uses other than mortar removal	For tasks performed outdoors only: Use grinder equipped with an integrated water delivery system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
	OR Use grinder with commercially available shroud or cowling dust collection system Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide 25 cubic feet per minute (cfm) or greater airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanics. <ul style="list-style-type: none"> <li>▪ When used outdoors</li> <li>▪ When indoors or in an enclosed area</li> </ul>	None	None
		APF 10	APF 10

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		≤ 4 hours / shift	> 4 hours / shift
Walk-behind milling machines and floor grinders	Use grinder equipped with an integrated water delivery system. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
	OR Use machine equipped with dust collection system recommended by the manufacturer. Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust between passes.	None	None
Crushing Machines	Use equipment to deliver water spray or mist for dust suppression at crusher and other points where dust is generated Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.	None	None
Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials or used during demolition activities involving silica-containing materials	Operate equipment from within an enclosed cab, OR	None	None
	When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emission	None	None
Heavy equipment and utility vehicles for tasks such as grading and excavating but not including: demolishing, abrading, or fracturing silica-containing materials.	Apply water and/or dust suppressants as necessary to minimize dust emissions. OR	None	None
	When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None	None

