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- **Part Number:** 1910
- **Part Title:** Occupational Safety and Health Standards
- **Subpart:** Z
- **Subpart Title:** Toxic and Hazardous Substances
- **Standard Number:** 1910.1000 TABLE Z-3
- **Title:** TABLE Z-3 Mineral Dusts

TABLE Z-3 Mineral Dusts

Substance	mppcf <sup>a</sup>	mg/m <sup>3</sup>
Silica:		
Crystalline		
Quartz (Respirable) . . . . .	$\frac{250^b}{\%SiO_2+5}$	$\frac{10 \text{ mg/m}^3^e}{\%SiO_2+2}$
Quartz (Total Dust) . . . . .	.....	$\frac{30 \text{ mg/m}^3}{\%SiO_2+2}$
Cristobalite: Use 1/2 the value calculated from the count or mass formulae for quartz.		
Tridymite: Use 1/2 the value calculated from the formulae for quartz.		
Amorphous, including natural diatomaceous earth	20	$\frac{80 \text{ mg/m}^3}{\%SiO_2}$
Silicates (less than 1% crystalline silica):		
Mica . . . . .	20	
Soapstone . . . . .	20	
Talc (not containing asbestos) . . . . .	20 <sup>c</sup>	
Talc (containing asbestos) Use asbestos limit		
Tremolite, asbestiform (see 29 CFR 1910.1001)		
Portland cement . . .	50	
Graphite (Natural) . . . . .	15	
Coal Dust:		
Respirable fraction less than 5% SiO <sub>2</sub> . . . . .	.....	2.4 mg/m <sup>3</sup> e
Respirable fraction greater than 5% SiO <sub>2</sub> . . . . .	.....	$\frac{10 \text{ mg/m}^3^e}{\%SiO_2+2}$
Inert or Nuisance Dust: <sup>d</sup>		
Respirable fraction . . . . .	15	5 mg/m <sup>3</sup>
Total dust . . . . .	50	15 mg/m <sup>3</sup>

Note -- Conversion factors - mppcf X 35.3 = million particles per cubic meter = particles per c.c.

<sup>a</sup> Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques.

<sup>b</sup> The percentage of crystalline silica in the formula is the amount determined from airborne samples, except in those instances in which other methods have been shown to be applicable.

<sup>c</sup> Containing less than 1% quartz; if 1% quartz or more, use quartz limit.

<sup>d</sup> All inert or nuisance dusts, whether mineral, inorganic, or organic, not listed specifically by substance name are covered by this limit, which is the same as the Particulates Not Otherwise Regulated (PNOR) limit in Table Z-1.

<sup>e</sup> Both concentration and percent quartz for the application of this limit are to be determined from the fraction passing a size-selector with the following characteristics:

Aerodynamic diameter (unit density sphere)	Percent passing selector
2 . . . . .	90
2.5 . . . . .	75
3.5 . . . . .	50
5.0 . . . . .	25
10 . . . . .	0

The measurements under this note refer to the use of an AEC (now NRC) instrument. The respirable fraction of coal dust is determined with an MRE; the figure corresponding to that of 2.4 mg/m<sup>3</sup> in the table for coal dust is 4.5 mg/m<sup>3</sup>.

**[Note: This document was changed to an html version as of 11/24/2004]**

[58 FR 35340, June 30, 1993; 58 FR 40191, July 27, 1993, as amended at 61 FR 56831, Nov. 4, 1996; 62 FR 1600, Jan. 10, 1997; 62 FR 42018, Aug. 4, 1997]

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