

PERLITE is not contaminated with asbestos

For a number of years the health effects of asbestos have been well known. Because of the seriousness of the issue and because asbestos is a naturally occurring mineral, concerns have often been expressed as to whether asbestos may be, or is, a contaminant in other mineral products.

From time to time the Perlite Institute has been asked whether perlite contains asbestos contamination or whether perlite is free from asbestos. Most typically, these questions are asked of individual suppliers, who in turn must test their product(s) for possible contamination and provide the results to the inquirer. Because of this, the Perlite Institute has had very little actual data on the subject. In order to provide this information, both to its member companies, to users of perlite products, and, most importantly, to the general public, the Institute has undertaken a project to collect available data both on perlite ore and expanded perlite products. This report summarizes the results of the findings. The data is based upon perlite products mined and processed at various locations throughout the World.

To date, there is no evidence that perlite contains asbestos either from contamination or as a secondary component. The following test results have been compiled from tests conducted by individual member companies:

Sample No.	Perlite Type	Detection Limit	Asbestos Type(s)	Methodology**
1	ore	<0.0001 %	ND*	EPA 600/R-93/116
2	ore	1 %	ND	XRD
3	ore	1 %	ND	PLM
4	ore	any fiber	ND	SEM
5	ore (coarse)	any fiber	ND	SEM
6	ore (fine)	any fiber	ND	SEM
7	ore	any fiber	ND	SEM
8	ore (coarse)	any fiber	ND	SEM
9	ore (fine)	any fiber	ND	SEM
10	concrete aggregate	-	ND	XRD & TEM
11	cryogenic	-	ND	XRD & TEM
12	filteraid	1 %	ND	XRD
13	horticultural	1 %	ND	XRD
14	masonry fill	1 %	ND	XRD
15	micro balloons	1 %	ND	XRD

* ND = none detected

** EPA = EPA test method; XRD = x-ray diffraction; PLM = polarized light microscopy;
TEM = transmission electron microscopy; SEM = scanning electron microscope

These results are reassuring and confirm what has been previously accepted based upon the different geologic origins of perlite and asbestos (i.e., perlite is a form of rhyolite characterized by a fine microscopic and amorphous structure; i.e. a volcanic glass whereas asbestos is a mineral and exists as a fibrous form of amphibole. The two are rarely, if ever, seen in the same deposit.). The Perlite Institute will continue to monitor this issue and as future tests become available, the results will be made available to the public.