

HPP and AS-200 for Ceiling Tiles

per Hyphat
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The characteristics of grades HPP and AS-200 of CALIDRIA Asbestos appear to be making these grades best suitable for this application in Japan. This is because the current construction law stipulating compulsory use of non-flammable plates for ceiling materials of Japanese high storied buildings, and as far as the rockwool acoustic absorbent ceiling tile are concerned, all of such materials should pass the test of the Ministry of Construction Non-flammability authorization No. 1021.

The dimensions of materials are specified as follows (Ministry of Construction Authorization No. 1021 for non-flammable materials):

Shape	Thick- ness (mm)	Size (mm)	Density (g/cm ³)	Bending Strength (kg/cm ²)	Water Content (%)	Thermal Con- ductivity(Kcal/ mhdeg)(Average temp. 70±5°C)
Flat board	9					
	12	300 x 300 (303x303) 300 x 600 (303x606)	below 0.5	above 8.0	below 0.3	below 0.06
	15	454.5 x 454.5 600x1,200(606x1,212)				
	19	(may include different sizes as required)				

There are seven domestic manufacturers of rockwool acoustic ceiling tile and six of them are employing the wet process. At present, five companies are using AS-200 or HPP, and the remaining one, Showa Denko, is currently in the process of mill trial with HPP and this company has already determined the use of 10 tons/month from the next year. Therefore, we would attain 100% exclusive share in this field next year.

**PLAINTIFF'S
EXHIBIT**

UC-368

Listed below are the makers of rockwool acoustic ceiling tile:

Company	Grade	Amounts used	
		Nov. 1973	Dec. 1973
Daiken Kogyo Co.	AS-200	160 ton	160 ton
Nittobo Kenzai Co.	HPP	140 "	130 "
Eidai Sangyo Co.	HPP	40 "	40 "
Matsushita Denko Co.	HPP	50 "	90 "
Mitsuboshi Rock Star Co.	HPP	5 "	5 "
Showa Denko Co. *	HPP	5 "	5 "

*Mill Trial

As you are aware, this application involves a patent problem being filed by Daiken Kogyo. Currently negotiations are in progress between Daiken and ourselves in an effort to work out a solution in the interest of both UCC and Daiken. However it would take some time until we can reach a settlement.

It appears that HPP is not so much utilized for this application in the United States. This may be because of Japanese law being more stringent for the standards of non-flammable materials.

The typical formulation is as follows:

Rockwool	85%
HPP	3%
Tapioca	8%
Resin	2%
Others	2%

The purpose of HPP and AS-200 is to increase the retention of tapioca, thereby improving the overall quality of ceiling tile boards.

Daiken Kogyo has switched their grade from HPP to AS-200 with an increased volume of use twice as much, thereby greatly improving the non-flammability of its products.

In view of the above, this company's demand for AS-200 in 1974 would increase by 50% over the estimate of October 15, 1973 we previously submitted.

We believe CALIDRIA Asbestos will make an exclusive material in this application area upon successful solution of the patent problem.