

E. J. Jago

P. A. Partington

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ASBESTOS FREE PROFAX
W.C.FLETCHER MEMO TO YOU
MAY 5

Do you have any comments on this information concerning the Swedish recipes?

PAP/rg

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MELTING TRIALS OF HOT TOP MATERIAL
ON LABORATORY SCALE

Reason for trials:

We have found out that the new type of Vallak tiles have given some problems to the ingots after stripping because the tiles melt and stick to the ingot surface. Therefore, we have made some trials to compare the Vallak and the E Box to find out the standing for high temperatures.

Results:

Enclosure #1 shows photographs of Vallak tiles from Fagersta och Hagfors and also E Box's samples: (1) with asbestos, and (2) with mineral or slag wool replacing the asbestos. The samples have been heated up to 1300° C, 1400° C, and 1500° C in an oven for a 10-minute period.

We found that the Vallak material starts to sinter already at 1300° C and begins to melt at 1400° C. At 1500° C, the Vallak tile was completely melted out.

Concerning the E Box, sintering started first at 1500° C. The material however seems to be more porous than what the Vallak tile did at 1300° C. At 1300° C, we could easily crush down the E Box material. No tendency of sintering could be found. No remarkable difference between the two Vallak tiles could be found.

There was no difference between E Box samples with asbestos and E Box with mineral wool (asbestos-free).

We have found the sintering temperature of E Box to be 200° C above that of the Vallak tiles. Furthermore, the Vallak tiles start to melt 100° C before the E Box starts to melt.

E-Box present recipe (all products)

Olivine sand-	88%	
Mineral wool	3.2	
Ph. resin	1.6	
UF	1.3	
Newsprint	5.9	
		Ingot tests show no differences in yield between asbestos and asbestos-free.