STEELWORKS BULLETIN

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PRICE INCREASES OF R.M.265D

Please find attached a copy of the minutes of a meeting with Cape Asbestos which was called to discuss the price increases to be imposed on supplies of asbestos to operating companies. The present situation and future implications for supplies of this raw material are evident from these minutes.

1. In view of this situation and coupled with the present price differential between grades S33/65 (R.M.265D) and S44, companies are recommended to evaluate the replacement of S33/65 by S44 as soon as possible.

Attached is a technical report comparing the effects on the finished product of asbestos grades S22/63, S33/65 and S44 for your information.

Foseco G.m.b.H. are currently evaluating S44 on a production basis and as soon as information is available it will be published for the benefit of companies.

S44 is a fairly new grade of fibre produced by further refining of waste. Cape Asbestos assured the meeting that it was in good supply.

2. Because of the predicted limited availability of amosite asbestos in the future and, therefore, the probability that the price of all grades will rise again next year and continue to rise for the next five years, it is recommended with regard to the present situation that companies evaluate in due course the elimination of asbestos, where possible, both for health and economic reasons.

To this end a development study will be carried out by the department in the second quarter of 1972.

M.J. Mellodey

MEETING WITH CAPE ASBESTOS FIBRES LIMITED,
LONDON AT F.I.L. - 24TH NOVEMBER.

Purpose.

The meeting was called at the request of F.I.L. to establish the price and availability of the various grades of amosite asbestos used within the Group during 1972. The meeting followed a report that increments of 9% on S44 prices and 11% on S33 prices had been quoted to Foseco Gesellschaft, Germany.

Salient Cape points.

1. C.A.F.L. indicated that the F.O.B. price of all grades of amosite asbestos marketed by Capes are being increased by a minimum of 8%. Also from January 1st, 1972, freight charges from South Africa to European ports were increasing by 15%. In consequence, the European companies could anticipate increments of the order of 9%.

2. The grades of amosite asbestos S33/65 and S44 purchased by refractory tile manufacturers would carry a minimum increment of 8% compared with an increase of 20-25% for those grades of amosite asbestos marketed to the Building Industry.

3. The reasons given by Capes for these increases were as follows:-

1) As a result of political activity in South Africa, Capes informed that labour costs had increased due basically to the need to retrain on an annual basis the bulk labour force.

2) The demand for amosite asbestos was currently around 50% more than the current capacity of the production facility in South Africa.

3) Production capacity could not be significantly increased within 5 years because the current mine shafts are at peak production capacity and it would need the sinking of fresh mine shafts plus the building of new production plants to raise the output in line with demand. A decision regarding increasing capacity is due to be taken by Capes during next year. This would not, however, take effect for 5 years and would mean that in the interim there could be keen competition for amosite asbestos with the inference that prices would continue to rise.

4) Capes indicated that these worldwide price increments were being implemented partially to raise necessary capital funds for expansion.

5) Capes indicated that it was their policy in instituting differential price increases to maintain interest in the supply of amosite asbestos to the Refractory Tile Industry at the expense of the business to the Building Sector.

Salient Foseco points.

1. In response to our enquiry regarding either a group discount or special price in view of the increased offtake of the group during the past three years, i.e.

1969 - 600 tons, 1970 - 2,000 tons, 1971 - 2,500 tons

Capes reiterated that no discount or special price was available over the 600 ton figure.

2. In view of Cape Asbestos remarks regarding the future availability of amosite asbestos, F.I.L. requested consideration for a 2 year contract provided the price was satisfactory. Capes indicated that they were not prepared to consider contracts of greater than one year duration.

3. During discussion, Foseco Inc's offtake current and potential 72 were introduced. The price which Foseco Inc. pay to N.A.A.C. could not be related by Foseco directly to the same F.O.B. South Africa port price that applied to European Foseco associates. Capes advised that their policy was a separate market price in North America and Japan. Prices in these two regions would be significantly higher than those appertaining to Europe and the rest of the world. In view of this we requested a quotation for supplies to Foseco Inc. ex South African port from Cape Asbestos Fibres London Limited. Mr. Scott indicated that he would raise this with N.A.A.C. and would revert if agreeable with an offer.

4. Cape Asbestos Fibres were informed that in the present price climate Foseco as a group would be looking at alternative materials and alternative suppliers of amosite asbestos.

COMPARISON OF ASBESTOS S44 WITH THE

STANDARD MATERIAL R.M.265D (S33/65)

Introduction

Laboratory tests had shown that two new grades of asbestos S33/65 and S44 could be used as alternative material to R.M.'s 265B or 265C. The tests below were carried out to examine the properties of S44 under production conditions, using R.M.265D (S33/65) as standard.

Experimental

The recipe used as a basis was as used in the previous tests.

i.e.	6% Asbestos
	3% 468B
	4% 267
	29% 131C
	58% 00E

The two Asbestos types S44 and S33/65 were substituted in the above recipe.

Mixing Procedure

Total solids weight - 50 Kg.
Volume of water - 60 gallons.

The standard production scale hydropulper was used. The procedure was as follows:

(1) R.M.'s 267 and 00E were pulped with approximately ¼ of the total volume of water until the R.M.267 was completely pulped. (Time ca. 30 minutes).

(2) All the other R.M.'s were added and pulping continued while the total amount of water was added. (Time 2 minutes).

(3) Pulping was continued for a further 3 minutes and the slurry discharged.

Two mixes were made using the above procedure, one with S44 and the other with S33/65. A second mix with S44 was made using a slightly modified procedure as follows:

1) R.M.'s 267 and 00E were pulped as described above.

2) All the other R.M.'s except the S44 were added and pulped as above.

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/Contd

3) Pulping was continued for a further 3 minutes.

4) S44 was added and mixed in without intensive pulping.

The reason for the modified procedure was to prevent any reduction in fibre length of the Asbestos since this was already considerably shorter than the R.M.265D.

Properties of slurry, and tiles

Standard tiles (1200 x 33 cm.) were formed on the SAM at 40 p.s.i. applied pressure. The tile thickness was approximately 1 inch. The formability, forming and dewatering times, slurry suspension, green strength and green water content of the tiles was determined; the density, permeability and transverse strength of the cured tiles was also determined.

Results

	1 S33/65	2 S44	3 S44 (modified mixing procedure)
Slurry properties			
solids content %	15 - 16		
suspension (% clear liquid)			
after 1 hour	22	25	23
after 24 hours	30	32	30
Forming properties			
green product			
formability (distribution of slurry on tool - evenness of top surface and thickness of tile)	good	good	good
green strength	very good	very good	slightly better than the other mixes
Forming time (sec)	20	17	20
Dewatering time (sec)	22	20	25
Finished product			
Density (g/cc)	0.88	0.93	0.90
Permeability (AFS units)	7.5	11.3	11.3
Transverse strength (p.s.i.)	197	236	260

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The general appearance, hardness and flexibility of the cured tile were similar in each case.

Steel pour test

a) Ease of strip: All tiles easily removed. Residues fairly well sintered. No observable difference in behaviour of each tile.

b) Metal surface quality: Smooth metal surface in each case. No penetration. Moderate burn on.

Comment

(1) Comparing 1 and 2, the properties of the products at each stage of manufacture are very similar with the exception of the density of the tile, which is somewhat greater in the case of S44.

(2) The modified mixing procedure for S44 has brought about an improvement in green strength and transverse strength by preserving the fibre length of the Asbestos and there has been a slight reduction in density. This procedure is therefore to be recommended.

(3) The green strength of the tiles made with the new types of Asbestos is satisfactory for tile manufacture. Further tests would be necessary to determine whether this is sufficient for one piece head manufacture.

Conclusion

Apart from the differences in density and the economic implication of this, there are no great differences in quality of tiles made with S44 compared with those from S33/65. S44 could therefore be used as an alternative.

V.E. Mellows

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S44 IN GERMANY

On production uses to-date the German company has been unable to establish any differences in performance of their Profax using asbestos grade S44.