Monsanto

FROM (NAME & LOCATION) P.J.A. Marsh, London

DATE : 23rd November, 1967

SUBJECT : DODECYLBENZENE FOR CABLES

REFERENCE : FLU/PJAM/JLW

TO : P.G. Benignus, St. Louis

cc: H.S. Bergen - St. Louis
G.R. Buchanan - St. Louis
R.H. Munch - St. Louis
W.R. Richard - St. Louis
D.S. Cameron - Brussels
D. Wood - Brussels
A. Arpino - Paris
C.R. Coleman - Ruabon

Dear Paul,

Many thanks for your very helpful memo. of 30th October answering a number of the points raised in my recent Pirelli report. I have been tied down on Skydrol programmes with visits of REH/FHL earlier this month, hence the delay in reply. Brussels - London mail being what it is - I have just received David Wood's memo. to you dated 14th November, which coincided with your reply of 21st November.

David Wood has sent you some information he obtained from B.I.C.C. meanwhile the Pirelli situation has been investigated more thoroughly, as per your request.

The following comments will be of use.

Main U.K. Cable Manufacturers

B.I.C.C.
Pirelli
A.E.I.
Enfield Standard

N.B. B.I.C.C./Pirelli are approximately the same size in the U.K. between them they account for the major portion of U.K. cable manufacture.

Pirelli is the only U.K. manufacturer using DDB. In my report (page 2) I comment that DDB replaces mineral oil as impregnant. This refers to Pirelli not to U.K. market as a whole. We have known for some time that other U.K. cable manufacturers still use mineral oil.

B.I.C.C. claim reasons for use of DDB were purely commercial due to Italian duty situation. Pirelli claim this situation only helped speed up change to DDB. Pirelli maintain DDB has superior performance over mineral oil and eventually other manufacturers will change. AEI/BICC said to be conservative in approach to this change according to Simmons who used to work for AEI (see Call Report).

B.I.C.C. claims price of DDB at £115 per ton are ridiculous. Checks with Pirelli buying department show price of DDB in U.K. from Shell at £60 per ton with similar price in Italy from Montecatini. They claim U.K. cable mineral oil suppliers (e.g. Dussek Bros.) has had to reduce price recently to meet DDB competition.

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New DDB blends referred to (see specification below) give following advantages over mineral oil.

1. Thermal stability
   Use of aluminium sheath cables has resulted in a higher thermal capability requirement of impregnant, i.e., in 100°C region when mineral oil commences to degrade.

2. Gas Absorption
   DDB has capability of absorbing minute bubbles of gas formed under high electrical stress conditions. Mineral oil composition recently altered to improve gas absorption.

3. Purity
   Possible to produce DDB to higher purity than mineral oil therefore improved electrical properties.

4. Price
   DDB prices in U.K. now £60/65 per long ton compared with low viscosity mineral oil at £40/50 per long ton. Pirelli DDB now fully justified on cost performance basis.

Details of Pirelli world-wide requirements as follows:

Cable manufacturing locations

Italy	- Milan
U.K.	- Southampton
Spain	- Barcelona
Canada	- Montreal
Argentina	- Buenos Aires
Brazil	- Sao Paulo
Mexico	- Mexico City
Turkey	- Ankara (?)

Known DDB requirement

Italy	-	1,000 to 1,500 tons p.a.
U.K.	-	1,500 tons per annum
Others	-	No figures available in U.K.

Pirelli U.K. Specification

Name	Dodecylbenzene
Type	Branched chain molecular structure - Hard alkalate (N.B. Used to use Soft Alkalate from straight chain, now prefer Hard Alkalate)
Viscosity	12 C/S ± 20% at 20°C
Flash Point	125°C pensky Martin closed
Power factor	0.002 at 85°C measured on Tinsky cell at 200 - 240V 50 C/S.
Consumption	1500 tons per annum
Price	£60 per ton
Supply Situation	U.K. - Shell Italy - Montecatini
Attitude	Will buy on price within above loose specification.

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If you are interested in these prices and volumes I suggest you go direct to Pirelli, Milan, to get consumption figures for other locations.

If things still look good then I would suggest you go for their business on a world-wide basis. Their U.K. buyer (Mr. Phillips) feels this would interest Milan. The contact in Milan should be Dr. U. Pelagatti.

Paul, I trust the above is of use. Please get in touch for any further information you require from the U.K. Otherwise David Wood will arrange handling of the Italian side.

Regards,

P.J.A. MARSH

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