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Report No.51/89

Ref: PL/TJL

REPORT on Discs received from Paul Lynch, General Manager- Thortex Division of E. Wood Ltd., Standard Way, Northallerton, N. Yorks., DL6 2XA on January 9th 1989.

## Determination of leachable substances from prepared discs

The samples consisted of six pairs of test discs which were labelled

- A) Metal - Tech EG
- B) Cerami - Tech EG
- C) Cerami - Tech FG
- D) Flexi - Tech EG
- E) Flexi - Tech FG
- F) Grano - Tech

Each disc had a surface area of 52.1 square centimetres. Each was immersed in 200 ml of water at a pH of 6.5 and at a temperature of 70°F, for a period of 7 days. The panels were removed and the water analysed for the following constituents with the corresponding results:

<u>Tests Panel</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
Constituent Concentration in water						
Chloride mg/litre	less than 5.0	less than 5.0	less than 5.0	less than 5.0	less than 5.0	less than 5.0
Fluoride mg/litre	less than 0.1	0.2	less than 0.1	less than 0.1	less than 0.1	less than 0.1
Total Halogen mg/litre	less than 5.0	less than 5.0	less than 5.0	less than 5.0	less than 5.0	less than 5.0

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<u>Test Panel</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>
Constituent Concentration in water						
Lead mg/litre	less than 0.05	less than 0.05	less than 0.05	less than 0.05	less than 0.05	less than 0.05
Mercury microgram/ litre	less than 0.2	less than 0.2	less than 0.2	5.0	6.3	less than 0.2
Sulphur and Sulphur Compounds mg/litre	less than 5.0	less than 5.0	less than 5.0	less than 5.0	less than 5.0	less than 5.0
Zinc (mg/litre)	less than 0.2	less than 0.2	less than 0.2	less than 0.2	less than 0.2	less than 0.2

Observations

Council Directive 778/80/EEC which relates to the quality of water intended for human consumption lists the following concentrations as guide levels (G.L.) or maximum admissible concentrations (M.A.C.)

	G.L.	M.A.C.
Chloride (mg/litre)	25	
Fluoride (mg/litre)		0.7
Lead (mg/litre)		0.05
Mercury (microgram/ litre)		1

Other parameters that were determined are not listed in this directive.

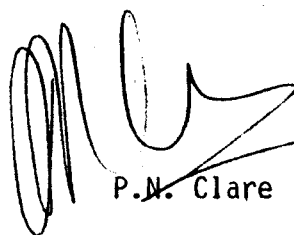
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Methods of Analysis

- 1) Lead, Mercury and Zinc were determined by atomic absorption spectroscopy.
  - 2) Sulphur was determined by turbidity using Barium Chloride.
  - 3) Chloride and Total Halogens were determined by volumetric analysis.
  - 4) Fluoride was determined colourimetrically.
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February 1st 1989

copy sent November 26th 1991



P.N. Clare

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P.P.M. Extractable	A	B	C	D	E	F
Chloride	<100	<100	<100	<175	<175	<100
Fluoride	<2	<4	<4	<3	<3	<2
Total Halogens	<100	<100	100	175	175	100
Lead	<1	<1	<1	<1	<1	<1
Mercury	<4	<4	<4	<200	<250	<4
Sulphur & Sulphur Compounds	<100	100	100	175	175	100
Zinc	<4	<4	<4	<6	<6	<4

Methods of Analysis

- 1) Lead, Mercury and Zinc were determined by atomic absorption spectroscopy.
  - 2) Sulphur was determined by turbidity using Barium Chloride.
  - 3) Chloride and Total Halogens were determined by volumetric analysis.
  - 4) Fluoride was determined colourimetrically.
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