

TEST REPORT

Date 08/21/02

w.o. No. T 36994

THERMAL MECHANICAL ANALYSIS

Environment: Nitrogen Applied Load: 2 grams Heating rate: 10°C/minute Test direction: As noted

TEST METHOD

ASTM E 831-00

IDENTIFICATIN

Richlite

CONDITIONING

Tested "as received"

<u>SPECIMEN</u>	INITIAL <u>LENGTH</u> mils	TEMPERATURE <u>RANGE</u> °F	COEFFICIENT OF <u>THERMAL EXPANSION</u> x 10 ⁻⁶ in/in/°F
X- Direction	490	-40 to +135	5.0
Y- Direction	486	-40 to +187	11.4
Z- Direction	244	-65 to 234	46.3

Notes

- 1. Even though testing was conducted between -65°F and 350°F, only the linear region of the TMA curve was used to calculate the coefficient of linear thermal expansion.
- 2. X and Y directions were as designated by the client.
- 3. No acceptance/rejection criteria were submitted for the above results.

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