

# LINE-X

NORTH AMERICAS NO.1 POLYURETHANE COATING COMPANY

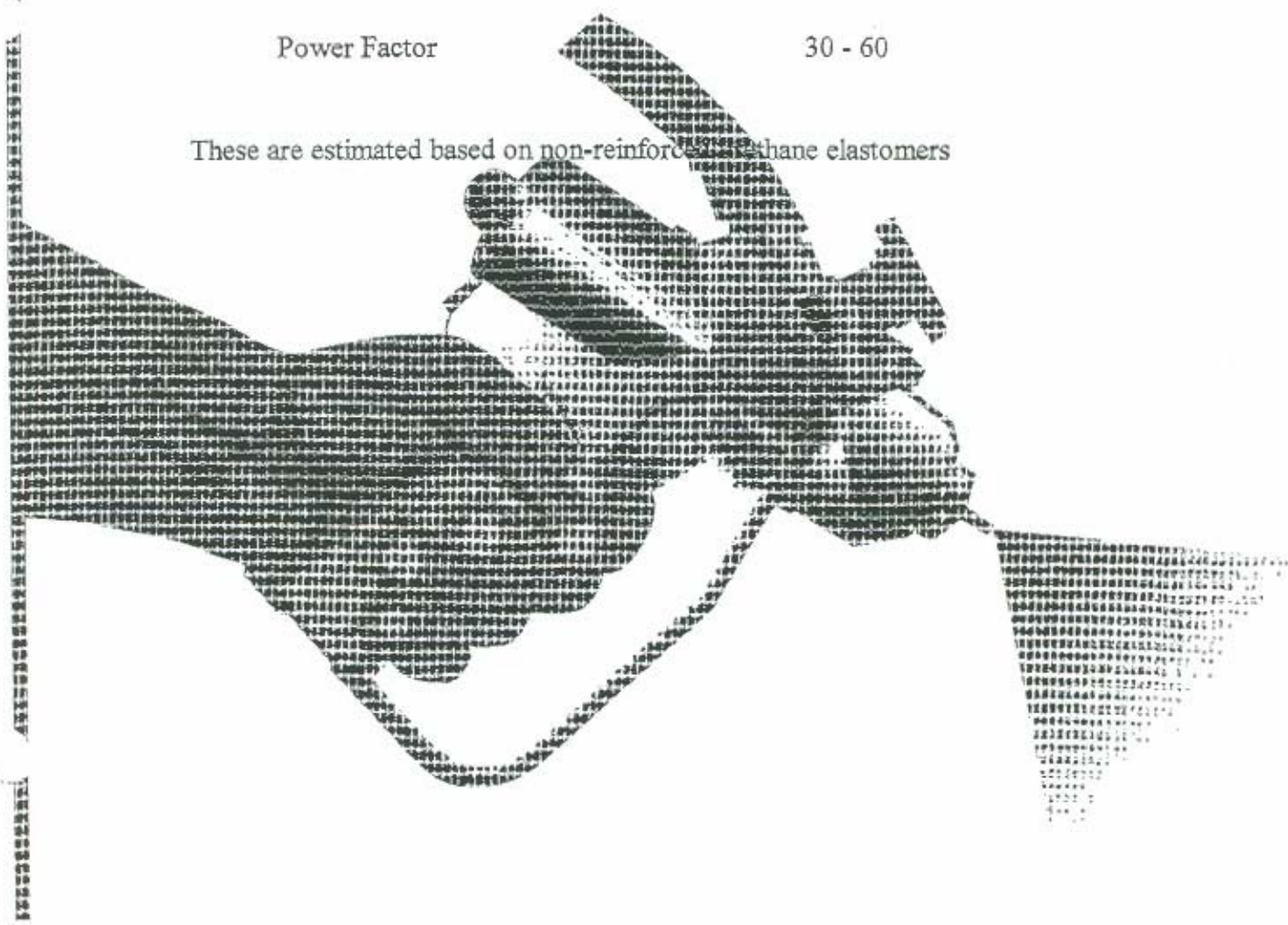
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## Electrical Properties Of Urethane Elastomers

Re: BUC XS-100 (Line-X) Polyurethane

|                              |                 |
|------------------------------|-----------------|
| Dielectric Strength          | 400 Volt / Mil  |
| Volume Resistivity ohm / Mil | 10 <sup>7</sup> |
| Dielectric Constant          | 4 - 7           |
| Power Factor                 | 30 - 60         |

These are estimated based on non-reinforced urethane elastomers





2026 Bay Road, Stoughton, MA 02072 • (617) 341-8331

January 3, 1997  
Project 96231

Mr. Wayne Boudreau  
Burtin Corporation  
2550 Garnsey Street  
Santa Ana, CA 92707

Dear Mr. Boudreau:

The piece of embossed urethane matting material measuring approximately 17½" x 24" x 3/16" has been evaluated for electrostatic properties as follows:

1. Effective surface resistivity by the general methodology of AATCC 76.
2. Charge decay time by the general methodology of FTMS 4046(101c).
3. Personnel electrification by the general methodology of AATCC 134 (a walking test).

All conditioning and testing were performed at 73F and 15%RH.

#### TEST RESULTS

Because the surface resistance was so high, the personnel electrification values found are significantly lower than would probably occur in practice, as the voltage reached by walking on a flooring surface varies significantly with the size of the specimen in the case of high resistance materials. The values for the three test procedures are as follows:

Effective Surface Resistivity: Approximately  $2(10^{13})$  ohms/square.

Charge Decay Time. 5000 to 50 volts: Approximately 110 seconds.

Maximum Personnel Voltage Developed:

Neolite Footwear: 3.6 KV

Leather Footwear: 6.0 KV

Polyurethane Footwear: 3.0 KV

Mr. Wayne Boudreau  
Burtin Corporation

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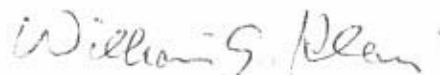
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While the voltages developed in the personnel electrification tests are modest, it was pointed out above that these values are misleadingly low because of sample size and, together with the high measured resistance, suggest that values two or three times as high could conceivably occur with a larger walking surface. Values were somewhat lower when tested over a grounded metal substrate than over an insulator.

It is clear that this material cannot be considered to be "static controlled," but how much of a problem this might be in practice will depend on the size and type of installation, manner of usage, and static sensitivity of the environment. There are additives available which could greatly improve the electrostatic properties while minimally affecting the physicals.

If you have any questions, please do not hesitate to contact me.

Very truly yours,



William G. Klein

WGK/ma