



**Johns Manville Technical Center
P.O. Box 725005
Littleton, CO 80162-5003**

**Memo Report
Thermal Technology
Memo Report No: HT99-39a
Date: March 5, 1999**

Title: Ultra Tuff

**Requested By: Bill Duffle
Info Requested: Thermal Conductivity
Apparatus: Heat Flow Meter
Test Model: ASTM-C-518**

**TABS No: SH11805A
Tested By: R. Morley
Notebook No: CO-431
Charge Code: EX-MISC**

Results

Sample ID	Thickness inches	Thermal Conductivity BTU-in/hr ft F	R-value hr ft F/BTU	R per inch hr ft f/BTU in
Coating	0.116	1.413	0.0821	0.708
Coating with approx. An 1/8" air gap between The surface and meter	0.244	14.27	1.0171	0.070

Note: This report replaces HT-99-39

Reported By: Ruth Morley
Ruth Morely R-46

Copies M. Albers R-46
R. Christjansen R-37
Heat Transfer R-46

Supervisor Approval:

This testing conforms to the ASTM Test method shown except for the report requirements. A summary report is given here. The full complement of data is available. The content of the report relates only to the items tested.