

**ASTM F 2412-2011  
IMPACT & COMPRESSION**

**PRODUCT DESCRIPTION: Model FW63, UFW63, FW 64, UFW64, FW05, UFW05**

**IMPACT:**

| SAMPLE NO. | GATE SPEED (ms) | GATE VELOCITY (in/sec) | CLEARANCE AFTER IMPACT (mm) |
|------------|-----------------|------------------------|-----------------------------|
| 1          | 8.57            | 116.7                  | 19.76                       |
| 2          | 8.47            | 118.1                  | 18.96                       |
| 3          | 8.58            | 116.6                  | 19.11                       |

**COMPRESSION:**

| SAMPLE NO. | FORCE APPLIED (lbf) | CLEARANCE AFTER IMPACT (mm) |
|------------|---------------------|-----------------------------|
| 1          | 2501.0              | 21.11                       |
| 2          | 2501.2              | 23.16                       |
| 3          | 2500.4              | 22.99                       |

**ASTM F 2412-2011  
PUNCTURE RESISTANCE:**

**PRODUCT DESCRIPTION: Model FW63, UFW63, FW64, UFW64, FW05, UFW05**

| SPECIMEN NO.   | PUNCTURE NO. | SPECIMEN THICKNESS (mils) | FORCE APPLIED (N) | PUNCTURE (YES/NO) |
|----------------|--------------|---------------------------|-------------------|-------------------|
| 1              | 1            | 29.1                      | 1200              | NO                |
|                | 2            | 26.6                      | 1200              | NO                |
|                | 3            | 29.2                      | 1200              | NO                |
| 2              | 1            | 30.2                      | 1200              | NO                |
|                | 2            | 31.2                      | 1200              | NO                |
|                | 3            | 27.2                      | 1200              | NO                |
| 3              | 1            | 29.7                      | 1200              | NO                |
|                | 2            | 31.2                      | 1200              | NO                |
|                | 3            | 32.5                      | 1200              | NO                |
| <b>AVERAGE</b> |              | 29.7                      | 1200.00           |                   |