

# Material Specification

## T02 Revision A

### Bronze Filled Polytetrafluoroethylene PTFE/Bz

| Material Specification |                  |             |                    |                    |                   |
|------------------------|------------------|-------------|--------------------|--------------------|-------------------|
| Created: MZ            | Date: 10/12/2010 | Revision: A | Released: 10/12/10 | Material Code: T02 | Description: PTFE |

**1. Scope**

This document describes property requirements for a material primarily used in sealing applications.

**2. Specification**

|                                 |                       |                           |
|---------------------------------|-----------------------|---------------------------|
| Hardness                        | ASTM D-2240           | 60 D                      |
| Specific Gravity                | ASTM D-792-66         | 3.10                      |
| Tensile Strength                | ASTM D-1708-79        | 2,000 psi                 |
| Elongation                      | ASTM D-1708-79        | 150%                      |
| Flexural Modulus                | ASTM D-790-80         | 1.4 x 10 <sup>5</sup> psi |
| Flexural Strength               | ASTM D-790-80         |                           |
| a) 1% Strain                    |                       | 1,400 psi                 |
| b) 3% Strain                    |                       | 2,600 psi                 |
| Deformation                     |                       |                           |
| a) 78° F, 2000psi, 24hrs        | ASTM D-621-64         |                           |
| Total Deformation               |                       | 7.0%                      |
| Permanent Deformation           |                       | 3.0%                      |
| b) 500° F, 600psi, 24hrs        | ASTM D-621-64         |                           |
| Total Deformation               |                       | 26.0%                     |
| Permanent Deformation           |                       | 12.0%                     |
| Limiting PV                     |                       |                           |
| a) 10 fpm                       |                       | 7,500 psi x fpm           |
| b) 100 fpm                      |                       | 12,000 psi x fpm          |
| c) 1000 fpm                     |                       | 10,500 psi x fpm          |
| Wear Factor                     | K x 10 <sup>-10</sup> | 5.6                       |
| Coefficient of Friction         |                       |                           |
| a) Static @ 33.33 psi           | ASTM D-3702           | 0.05                      |
| b) Dynamic @ 33.33 psi, 150 fpm | ASTM D-3702           | 0.13                      |
| Color                           |                       | Brown                     |

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### 3. Test References

|                         |                |
|-------------------------|----------------|
| Hardness                | ASTM D-2240    |
| Specific Gravity        | ASTM D-792-66  |
| Tensile Strength        | ASTM D-1708-79 |
| Elongation              | ASTM D-1708-79 |
| Flexural Modulus        | ASTM D-790-80  |
| Flexural Strength       | ASTM D-790-80  |
| Deformation             | ASTM D-621-64  |
| Coefficient of Friction | ASTM D-3702    |

### 4. Revisions

Revision: A  
Date: 10/12/2010  
Written By: MEZ  
Approved: 10/13/10  
Date Approved CRH  
Reason: Updated to new format

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