

## Reinforced Polytetrafluoroethylene (FC-10)

**FC-10** is recommended for use in dry applications; it is not recommended for use in water and aqueous solution applications because it exhibits high wear.

**FC-10** is recommended for general-service food contact applications at temperatures from -70 °F to +450 °F (-57 °C to +232 °C).

### Chemical Compatibility

**FC-10** has limited chemical compatibility. It is not suitable for contact with aqueous solutions. (For more compatibility information, request report TR-60A, or go to <http://www.balseal.com/techlib>. Select **Technical Reports** (Login Required), then select **TR-60A Chemical Compatibility Guide**)

### FDA Compliance

**FC-10** is an "FDA compatible and compliant" material for use in food contact. (Request Research Report 50-640 for Bal Seal's definition of FDA compliant).

### Mechanical properties

The mechanical properties of **FC-10** at ambient temperatures are:

Tensile strength	ASTM D638	2100 psi (148 kg/cm 2)
Elongation	ASTM D638	230%

The following chart shows the wear rate of **FC-10** when it comes in contact with different media at various speeds and pressures:

<b>"K" Wear Factor</b>				
$\text{In}^3\text{-min./ft-lb-hr} \times 10^{-10}$ (" <b>K</b> " $\text{Cm}^3\text{-min./Kg-m-hr} \times 10^{-7}$ )				
AIR	WATER		OIL	
Wear Rate at 50,000 P.V.	Wear Rate at 100,000 P.V.		Wear Rate at 100,000 P.V.	
Speed (75 FPM) – pressure (667 PSI)	Speed (100 FPM) – pressure (1000 PSI)	Speed (1000 FPM) – pressure (100 PSI)	Speed (100 FPM) – pressure (1000 PSI)	Speed (1000 FPM) – pressure (100 PSI)
Testing in Process	Testing in Process	Testing in Process	Testing in Process	Testing in Process

### Color

White

### Cost

\$

### Advantages of FC-10

- FDA compliant for components in contact with food

### Other information

For additional information, please contact our Technical Sales Representative at (949) 460-2100. Bal Seal maintains a vast library of material references and testing information.

It is essential that the customer run evaluation testing under actual service conditions with a sufficient safety factor to determine if the proposed, supplied, or purchased, Bal Seal Engineering products are suitable for the intended purpose and to confirm expected results. Bal Seal Engineering makes no warranty, express or implied, regarding Bal Seal Engineering products or of the information contained herein, including but not limited to, warranties of merchantability, performance, and fitness for a particular use or purpose. Bal Seal Engineering shall not be liable for any loss or damage of any kind or nature that may result from the use of, reference to, or reliance on, the information contained herein, including, but not limited to, consequential, special (including loss of profits) direct, indirect, incidental, or similar damages, even if Bal Seal Engineering has been advised of the possibility of such damages. © 2010 (50-43); M17 Rev. C (623-16 and 623-64) 04-13-10