

UHMW Polyethylene (UPC-10)

UPC-10 is an ultra high molecular weight (UHMW) polyethylene-based material. It is “FDA compliant” for general-purpose commercial-grade usage. **UPC-10** has good wear resistance in water and other aqueous applications, and is suitable for very low speed, low pressure service.

UPC-10 is recommended for general service applications and may be used in food contact applications at temperatures from –65°F to +180°F (-55°C to +82°C).

Chemical Compatibility

UPC-10 performs well in water and other aqueous solutions. It is highly suitable for use in contact with ketones, alcohols, amines, and esters and has limited applications in contact with oxidizing acids and chlorinated solvents. (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 Compliant

UPC-10 is an “FDA compliant” resin for use in food contact. It meets FDA Regulation 21 CFR 177.1520, and USDA requirements for use in food contact applications. (Request Research Report 50-640-3 for Bal Seal’s definition of FDA compliant).

Mechanical Properties

The mechanical properties of **UPC-10** are:

Tensile strength	7,500 psi (510 kg/cm ²) to 8,100 psi (569 kg/cm ²)
Elongation	405 % to 412%

Color

White, translucent

Cost:

\$

Typical Applications

Industrial components handling aqueous solutions.

- Food contact components
- Industrial equipment handling powders and slurries
- Industrial mixers and blenders
- Seals for use in low speed, low-pressure service
- General-purpose fluid components

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 test 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 RT-24; M1 Rev. D (623-1 and 623-64) 04-13-10