

Virgin UHMW Polyethylene (UPC)

UPC is an ultra-high molecular weight (UHMW) polyethylene material that can be used in a wide variety of applications.

UPC has excellent wear resistance in water and other aqueous media, and is suitable for low-speed, low-pressure service. The material has a temperature range of $-450\text{ }^{\circ}\text{F}$ to $+180\text{ }^{\circ}\text{F}$ ($-268\text{ }^{\circ}\text{C}$ to $+82\text{ }^{\circ}\text{C}$).

Chemical Compatibility

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

FDA Compliance

UPC 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. Bal Seal defines FDA Compliant as materials that have been deemed by the FDA to be "safe for use in food contact" or "acceptable for use in food contact."

Mechanical Properties

Tensile Strength, Min	ASTM D638	5,000 PSI
Elongation, Min	ASTM D638	300%

Advantages of UPC

- Good chemical compatibility
- Excellent wear resistance in liquids
- Cryogenic compatibility

Typical applications for UPC include

- Pumps
- Processing equipment
- Painting equipment
- Cutting equipment

For more information, contact a technical sales representative, or e-mail us at sales@balseal.com.

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 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. © 2014, Bal Seal Engineering All rights reserved. M-68 Rev. NC (623-79) 4 APRIL 2014

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