Polyester Elastomer (ER-55)

ER-55 is a polyester elastomer used in applications where the mating surface finish is poor and requires a sealing material with a high degree of flexibility that will conform to surface irregularities and offer excellent sealing ability.

In addition, **ER-55** is used in moist or wet food contact applications where a high degree of chemical compatibility is needed. This material has low abrasion to soft mating parts, and is suitable for sealing moist environments and aqueous solutions at low speeds.

ER-55 is recommended for use in temperatures from -320 to +475 °F (-196 to +246 °C).

Chemical Compatibility

ER-55 has excellent chemical compatibility. This material is compatible with most fluids and gases, but it is not recommended for use with sulfuric and nitric acids, alkali metals, chlorine fluoride, lithium, potassium, and sodium at high temperatures. For more detailed information on chemical compatibility, reference Technical Report TR-60A in our online technical library at www.balseal.com.

FDA Compliance

ER-55 is made from “FDA compatible and compliant” resins and materials, but it has not been submitted to the FDA for approval.

Mechanical Properties

The mechanical properties of **ER-55** at ambient temperatures are:

Tensile strength	ASTM D638	5802 psi (408 kg/cm²)
Elongation	ASTM D638	500%
Shore Hardness	ASTM D2240	55

Color

Tan

Advantages of ER-55

- Made from “FDA compatible and compliant” resins and materials
- Low abrasion to soft materials
- High wear values compare to other SP-type materials

Other Information

For additional information, please contact our Technical Sales Representative at (949) 460-2100. We maintain 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 war ranty, 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.â 2010 RT-80 (50-768) M-41 Rev C (623-42 and 623-64) 04-13-10

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