

SHORE A
SHORE D

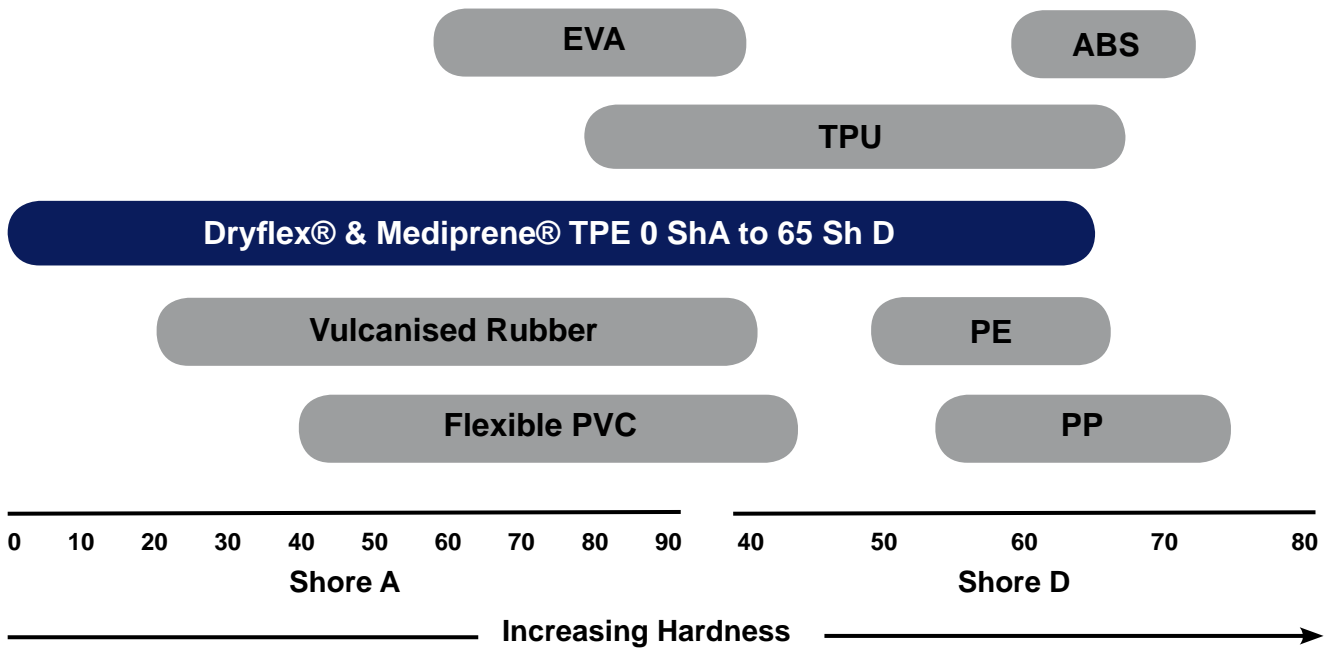
**flexible
solutions**

Hard or Soft?

One of the key properties to consider when selecting your TPE is the degree of hardness you require.

Hardness can be defined as a material's resistance to permanent indentation and Durometer is one of several scales used to measure hardness. The most common instrument for measuring rubber hardness is called a Shore durometer. A spring is used to push a metal indenter into the surface of the material, measuring how far it penetrates. The instrument measures the depth penetration from zero to 0.100 inches. A zero reading on the scale means the indenter is at the maximum depth and a reading of 100 indicates that no penetration was detected.

The Hardness of Polymers



Shore durometers come in a variety of hardness ranges. The Shore A scale uses a blunt indenter with a moderate spring force. Shore A instruments are not as accurate when readings are above 90, so for harder materials, the Shore D durometer is used, as it has a sharp indenter and a stronger spring to penetrate to a greater depth.

Dryflex® and Mediprene® TPEs are available as ultra-soft gel like materials measuring 0 Shore A through to rigid materials measuring up to 65 Shore D, and just about every variation in-between.