Thermoplastic Elastomers are measured in Shore A and Shore D according to ISO 868. Shore hardness is a measure of the resistance of a material to the penetration of a needle under a defined spring force. It is determined as a number from 0 to 100 on the scales A or D. The higher the number, the higher the hardness. The letter A is used for flexible types and the letter D for rigid types, though the ranges do overlap.

This chart shows a comparison of the Shore hardness A and D scales for Apilon 52 TPU materials. Shore hardness reduces as temperature rises.