



Division of ATG Group, L.P.

PHYSICAL (MECHANICAL) PROPERTIES

TEI STYLE NO.: TE-360 DESCRIPTION: 60-Duro FKM

MATERIAL SPEC.: ASTM-D-2000: 6HK612; A1-10; A1-11; B38; B48; EF31; E088:F15

REQUIREMENT	QUALIFICATION VALUE	CONTROL LIMITS	TYPICAL
Hardness, ASTM D 2240, Shore A or ASTM 1415, IRHD	60a	±5	60

NORMAL PHYSICAL PROPERTIES

ASTM D 1412 OR ASTM D 1414

REQUIREMENT	QUALIFICATION VALUE	CONTROL LIMITS	TYPICAL
Tensile Strength, <i>psi</i>	1200	minimum	1500
Tensile Stress at 50% Elongation, <i>psi</i>	N/A	N/A	N/A
Tensile Stress at 100% Elongation, <i>psi</i>	N/A	N/A	450
Tensile Stress at 300% Elongation, <i>psi</i>	N/A	N/A	N/A
Ultimate Elongation, %	200	minimum	210
<u>Compression Set, ASTM D 1414 or</u>	N/A	N/A	N/A
<u>Compression Set, ASTM D 395, Method B,</u>	N/A	N/A	N/A

API 6A RETAINED FLUID RESISTANCE

The compound shall, within the limits below, resist the effect of ASTM #3 oil after total immersion at 212°F for 70 hrs., per ASTM D 471

REQUIREMENT	QUALIFICATION VALUE	CONTROL LIMITS	TYPICAL
Volume Change, %	N/A	N/A	N/A
Hardness Change, <i>Shore A or IRHD</i>	N/A	N/A	N/A
Tensile Strength, % Change	N/A	N/A	N/A
Ultimate Elongation, % Change	N/A	N/A	N/A
Tensile Stress, <i>Change at 100% Elongation</i>	N/A	N/A	N/A

A1-10

Heat resistance ASTM D573 70 hrs. @ 250°C (482°F)

REQUIREMENT	QUALIFICATION VALUE	CONTROL LIMITS	TYPICAL
Hardness change, points	+10	maximum	0
Tensile strength change, %	-25	maximum	+4
Elongation change, %	-25	maximum	-3

A1-11*Heat resistance ASTM D573 70 hrs. @ 275°C (527°F)*

REQUIREMENT	QUALIFICATION VALUE	CONTROL LIMITS	TYPICAL
Hardness change, points	-5 / +10	←	+2
Tensile strength change, %	-40	maximum	-23
Elongation change, %	-20	maximum	+10

B38*% Compression set ASTM D395 Method B, Plied discs*

REQUIREMENT	QUALIFICATION VALUE	CONTROL LIMITS	TYPICAL
22 hrs. @ 200°C (392°F)	15	maximum	10

B48*% Compression set ASTM D395 Method B, Plied discs*

REQUIREMENT	QUALIFICATION VALUE	CONTROL LIMITS	TYPICAL
70 hrs. @ 200°C (392°F)	20	maximum	12

EF31*Fluid resistance, ASTM D471 Reference Fuel C, 70 hrs. @ 23°C (73°F)*

REQUIREMENT	QUALIFICATION VALUE	CONTROL LIMITS	TYPICAL
Hardness change, points	-5 / +5	←	-4
Tensile strength change, %	-25	maximum	-17
Elongation change, %	-20	maximum	-12
Volume change, %	0 / +10	←	+4

EO88*Fluid resistance, ASTM D471 Stauffer 7700/SAE fluid #2, 70 hrs. @ 200°C (392°F)*

REQUIREMENT	QUALIFICATION VALUE	CONTROL LIMITS	TYPICAL
Hardness change, points	-15 / +5	←	-7
Tensile strength change, %	-40	maximum	-16
Elongation change, %	-20	maximum	+3
Volume change, %	0 / +25	←	+18

F15*Low temperature brittleness ASTM D2137 method A, 9.3.2 Nonbrittle after 3 min. @ -25°C (-13°F)*

REQUIREMENT	QUALIFICATION VALUE	CONTROL LIMITS	TYPICAL
pass		pass	pass