

Elastomer properties (AASHTO)

| Natural Rubber | | | | | |
|--|------------------|------------------|------------------|--------------|-----------------------------------|
| Material Property | 50 Duro | 60 Duro | 70 Duro | Unit | ASTM Standard |
| Physical Properties | | | | | |
| Hardness | 50±5 | 60±5 | 70±5 | Shore Points | D2240 |
| Min tensile strength | ≥2,250 (15.5) | ≥2,250 (15.5) | ≥2,250 (15.5) | psi (MPa) | D412 |
| Min ultimate elongation | ≥450 | ≥400 | ≥300 | % | |
| Heat Resistance | | | | | |
| Max change in durometer | ≤+10 | ≤+10 | ≤+10 | Shore Points | D573 212°F(100°C) 168 h |
| Max change in tensile | ≥-25 | ≥-25 | ≥-25 | % | |
| Elongation | ≥-25 | ≥-25 | ≥-25 | % | |
| Compression set | | | | | |
| Max permissible test | ≤25 | ≤25 | ≤25 | % | D395 Method B 158°F(70°C) 22 h |
| Ozone Resistance | | | | | |
| Partial pressure of Ozone during test | 25 | 25 | 25 | pphm | D1149 |
| Duration of test | 48 | 48 | 48 | hours | |
| Test at 20% strain 100±2°F(37.1±1°C) Mounting procedure 0518, procedure A | No Cracks | No Cracks | No Cracks | | |
| Adhesion in Steel | | | | | |
| Peel Strength | ≥40 | ≥40 | ≥40 | lb/in | D429-14 Method B |

| Neoprene | | | | | |
|--|------------------|------------------|------------------|--------------|---------------------------------------|
| Material Property | 50 Duro | 60 Duro | 70 Duro | Unit | ASTM Standard |
| Physical Properties | | | | | |
| Hardness | 50±5 | 60±5 | 70±5 | Shore Points | D2240 |
| Min tensile strength | ≥2,250 (15.5) | ≥2,250 (15.5) | ≥2,250 (15.5) | psi (MPa) | D412 |
| Min ultimate elongation | ≥450 | ≥400 | ≥300 | % | |
| Heat Resistance | | | | | |
| Max change in durometer | ≤+15 | ≤+15 | ≤+15 | Shore Points | D573 212°F(100°C) 70 h |
| Max change in tensile | ≥-15 | ≥-15 | ≥-15 | % | |
| Elongation | ≥-40 | ≥-40 | ≥-40 | % | |
| Compression set | | | | | |
| Max permissible test | ≤35 | ≤35 | ≤35 | % | D395 Method B 212°F(100°C) 22 h |
| Ozone Resistance | | | | | |
| Partial pressure of Ozone during test | 100 | 100 | 100 | pphm | D1149 |
| Duration of test | 100 | 100 | 100 | hours | |
| Test at 20% strain 100±2°F(37.1±1°C) Mounting procedure 0518, procedure A | No Cracks | No Cracks | No Cracks | | |
| Adhesion in Steel | | | | | |
| Peel Strength | ≥40 | ≥40 | ≥40 | lb/in | D429-14 Method B |