LG Chem

# NBR 7030

NBR 7030 is a mechanically fully-fluxed polyblend of 70 parts medium-high acrylonitrile rubber and 30 parts polyvinylchloride resin. Since NBR 7030 are prefluxed, normal temperature for rubber can be adopted during mixing and subsequent factory operations.

NBR 7030 has sufficient stabilizer for normal aging conditions and can be processed with normal mixing procedures. It has higher compound strength, relatively better physical properties and good processability for extrusion, providing smooth surface on the resultant products.

These properties make NBR 7030 ideally suited for hose, wire, cable and roll application.
NBR 7030 is excellent in resistance to abrasion, ozone, oil, fuel and solvent.
It is suggested for use in wire & cable jackets, rolls, shoes, belts and hose (fuel hose, automotive and industrial hoses)

## BASIC PROPERTIES

| | |
|---|---|
| Medium-High NBR Content(part) | 70 |
| PVC Content (part) | 30 |
| Volatile Matter(%) | 0.3 |
| Ash(%) | 0.7 |
| Mooney Viscosity(ML1+4,100℃) | 57 |
| Specific Gravity | 1.05 |

Packaging Information
Slab sheet, Weight 25Kg

Storage Condition
Rubber should be stored in suitable condition such as no sunlight, no heat and dry place.

## VULCANIZATE PROPERTIES

Recipes(ASTM D3187)

| | |
|---|---|
| NBR 7030 | 100.0 phr |
| HAF(IRB #7) | 40.0 |
| ZnO | 3.0 |
| Stearic Acid | 1.0 |
| TBBS | 0.7 |
| Sulfur | 1.5 |
| Total | 146.2 |

Stress-Strain Properties
(ASTM D412, 145℃×50min. Cured)

| | |
|---|---|
| 300% Modulus(kg/㎠) | 164 |
| Elongation(%) | 511 |
| Tensile (kg/㎠) | 240 |

*The above data is a typical value, therefore there may be a slight difference between the elements of a supplied product and the data.

LG Chem

| COMPOUND RECIPES | |
|---|---|
| Formulation | |
| NBR 7030 | 100.0 Part |
| FEF (N-550) | 35.0 |
| Plasticizer(DOP) | 5.0 |
| ZnO | 5.0 |
| Stearic Acid | 1.0 |
| Stabilizer (RD) | 1.0 |
| Sunnoc-N (microwax) | 1.0 |
| NBS (OBTS, NOBS) | 0.70 |
| TT | 1.40 |
| Spider Sulfur | 0.35 |
| Total | 149.8 |

| PROPERTIES OF COMPOUNDS | |
|---|---|
| Mooney Viscosity (ML1+4,100℃) | 70 |
| Mooney Scorch (ML1+30, 125℃) | |
| Minimum Viscosity (minutes) | 42.5 |
| t'5 (minutes) | 22.5 |
| t'35 (minutes) | 28.5 |
| Rheometer(MDR,170℃×10min,0.5° Arc, MDR) | |
| ML(lb-in) | 0.8 |
| MH (lb-in) | 7.5 |
| ts1 (min.) | 1.3 |
| Tc'90 (min.) | 5.0 |

| | |
|---|---|
| Basic Properties(175℃×10min. Cured) | |
| Hardness(shore A) | 75 |
| Elongation(%) | 550 |
| Tensile (kg/㎠) | 215 |
| Specific Gravity (g/cc) | 1.23 |
| Circulating Oven Aging(100℃×72hrs) | |
| Hardness Change(point) | +3.0 |
| Tensile Change(%) | +5.5 |
| Elongation Change(%) | -50 |
| Aged ASTM #1 Oil(100℃×72hrs) | |
| Hardness Change(point) | +10 |
| Tensile Change(%) | +8.5 |
| Elongation Change(%) | -15.0 |
| Volume Swell(%) | -5.2 |
| Aged ASTM #3 Oil(100℃×72hrs) | |
| Hardness Change(point) | -2.0 |
| Tensile Change(%) | +5.2 |
| Elongation Change(%) | -12.0 |
| Volume Swell(%) | +7.6 |
| Aged FUEL C(R.T℃×72hrs) | |
| Hardness Change(point) | -33.0 |
| Tensile Change(%) | -52.0 |
| Elongation Change(%) | -26.9 |
| Volume Swell(%) | +57.2 |
| Compression Set(160℃×30min. Cured) | |
| 100℃×72hrs(%) | 45.2 |
| Gehman Low Temperature Torsional Test (ASTM D1053) | |
| T10 (℃) | -7.0 |

| | |
|---|---|
| DIN Abrasion Resistance | |
| Abrasion Loss (cu mm) | 110 |
| Ozone Resistance, 50pphm, 40℃, Bent loop | |
| 24 Hours | No Crack |
| 48 Hours | No Crack |
| 72 Hours | No Crack |
| 96 Hours | No Crack |
| 168 Hours | No Crack |

*The above data is a typical value, therefore there may be a slight difference between the elements of a supplied product and the data.

LG Chem, Ltd.