# NANCAR® 3555J

Acrylonitrile Butadiene Rubber

Nantex Industry Co., Ltd.

## Message:

NANCAR® 3555J is a medium high acrylonitrile butadiene copolymer with excellent oil resistance. It is polymerized at low temperature and contains sufficient antioxidant for normal aging conditions. It has fast curing rate, low mold fouling and superior resilience properties. It has good processing characteristics in compounds where flow and knitting are desired and is especially valuable in high durometer compounds.
NANCAR® 3555J provides good processing and building tack. It is suggested for use in molded goods, friction stock and similar applications.

| General Information | | | |
|---|---|---|---|
| Additive | Antioxidant | | |
| Features | Antioxidant<br>Copolymer<br>Fast Cure<br>Good Flow<br>Good Moldability<br>Good Processability<br>Oil Resistant<br>Resilient | | |
| Uses | Molds/Dies/Tools | | |
| Forms | Pellets | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Specific Gravity | 1.00 | g/cm³ | |
| Mooney Viscosity | | | ASTM D1646 |
| ML 1+4, 100°C [1] | 71 | MU | |
| ML 1+4, 100°C | 55 | MU | |
| Acrylonitrile Content - Bound | 35.0 | % | Internal Method |
| Solubility - in MEK | 100 | % | |
| Stabilizer | Non-staining | | |
| Viscosity | | | |
| Minimum | 47.0 | | ASTM D1646 |
| Minutes to 35 points rise, t35 | 31.5 | min | |
| Minutes to 5 points rise, t5 | 22.3 | min | |
| Heat Loss | 0.30 | % | ASTM D5688 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Durometer Hardness | | | ASTM D2240 |
| Shore A, 5 sec [2] | 74 | | |
| Shore A, 5 sec [3] | 73 | | |
| Shore A, 5 sec [4] | 72 | | |
| **Elastomers** | **Nominal Value** | **Unit** | **Test Method** |

| | | | |
|---|---|---|---|
| Tensile Stress | | | ASTM D412 |
| 300% Strain [5] | 9.80 | MPa | |
| 300% Strain [6] | 8.90 | MPa | |
| 300% Strain [7] | 6.30 | MPa | |
| Tensile Strength | | | ASTM D412 |
| Yield [8] | 29.7 | MPa | |
| Yield [9] | 27.9 | MPa | |
| Yield [10] | 27.1 | MPa | |
| Tensile Elongation | | | ASTM D412 |
| Break [11] | 610 | % | |
| Break [12] | 640 | % | |
| Break [13] | 770 | % | |
| Tear Strength | 64.0 | kN/m | ASTM D624 |
| Compression Set [14] (100°C, 70 hr) | 76 | % | ASTM D395 |

| Aging | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Change in Tensile Strength in Air [15] (100°C, 70 hr) | -5.0 | % | ASTM D573 |
| Change in Ultimate Elongation in Air [16] (100°C, 70 hr) | -39 | % | ASTM D573 |
| Change in Durometer Hardness in Air [17] (Shore A, 100°C, 70 hr) | 6.0 | | ASTM D573 |
| Change in Tensile Strength [18] | | | ASTM D471 |
| 100°C, 70 hr, in ASTM #1 Oil | -6.0 | % | |
| 100°C, 70 hr, in IRM 903 Oil | -18 | % | |
| Change in Ultimate Elongation [19] | | | ASTM D471 |
| 100°C, 70 hr, in ASTM #1 Oil | -31 | % | |
| 100°C, 70 hr, in IRM 903 Oil | -28 | % | |
| Change in Durometer Hardness [20] | | | ASTM D471 |
| Shore A, 100°C, 70 hr, in ASTM #1 Oil | 4.0 | | |
| Shore A, 100°C, 70 hr, in IRM 903 Oil | -7.0 | | |
| Change in Volume [21] | | | ASTM D471 |
| 100°C, 70 hr, in ASTM Oil #1 | -0.25 | % | |
| 100°C, 70 hr, in IRM 903 Oil | 12 | % | |

| NOTE | |
|---|---|
| 1. | Uncured |
| 2. | CURED @150°C for 60 mins |
| 3. | CURED @150°C for 40 mins |
| 4. | CURED @150°C for 20 mins |
| 5. | CURED @150°C for 60 mins |
| 6. | CURED @150°C for 40 mins |
| 7. | CURED @150°C for 20 mins |
| 8. | CURED @150°C for 60 mins |
| 9. | CURED @150°C for 40 mins |

| | |
|---|---|
| 10. | CURED @150°C for 20 mins |
| 11. | CURED @150°C for 60 mins |
| 12. | CURED @150°C for 40 mins |
| 13. | CURED @150°C for 20 mins |
| 14. | CURED @150°C for 60 mins |
| 15. | CURED@150°C × 40 MINUTES |
| 16. | CURED@150°C × 40 MINUTES |
| 17. | CURED@150°C × 40 MINUTES |
| 18. | CURED@150°C × 40 MINUTES |
| 19. | CURED@150°C × 40 MINUTES |
| 20. | CURED@150°C × 40 MINUTES |
| 21. | CURED@150°C × 40 MINUTES |



Recommended distributors for this material

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