



**Coru166 Blue Food Quality Nitrile Rubber 60° shore**

Approved to: FDA 21 CFR No: 177 – 2600 – EU1935/2004 regulations and USP Class V1 Compliant

| PROPERTIES                                   | TEST METHOD        | VALUES FPS UNITS | TEST METHOD | VALUES METRIC UNITS |
|--|--------------------|------------------|-------------|---------------------|
| SPECIFIC GRAVITY                             | ASTM D297          | 1.40 ± 0.05      | DIN 53508   | 1.40 ± 0.05         |
| HARDNESS                                     | ASTM D2240         | 60 ± 5 SH A      | DIN 53505   | 60 ± 5 SH A         |
| TENSILE STRENGTH ( MIN )                     | ASTM D412          | 1140 PSI         | DIN 53504   | 60 KG/CM2           |
| ELONGATION AT BREAK ( MIN )                  | ASTM D412          | 350%             | DIN 53504   | 350%                |
| COMPRESSION SET (70 °C/24 HRS/25% SET) (MAX) | ASTM D395 METHOD B | 40%              | DIN 53517   | 40%                 |
| TEAR RESISTANCE ( ANGULAR ) MIN              | ASTM D624          | 112 LBS/INCH     | DIN 53515   | 20 KG/CM            |
| CHANGE IN PROPERTIES                         |                    |                  |             |                     |
| HEAT AGEING ( 72 HRS. AT 70 °C )             | ASTM D573          |                  |             |                     |
| --- HARDNESS (PTS)                           |                    | + 4 (MAX)        |             | + 4 (MAX)           |
| --- TENSILE STRENGTH (%)                     |                    | + 10 / - 15      |             | + 10 / - 15         |
| --- ELONGATION AT BREAK (%)                  |                    | + 10 / - 20      |             | + 10 / - 20         |
| VOLUME SWELL : AT 70° C FOR 72 HRS/IN        | ASTM D 471         |                  |             |                     |
| ASTM OIL NO.1                                |                    | + 3 %            |             | + 3 %               |
| ASTM OIL NO.2                                |                    | + 16%            |             | + 16%               |
| ASTM OIL NO.3                                |                    | + 20%            |             | + 20%               |
| POLYMER CONTENT (NITRILE)                    |                    | 100%             |             | 100%                |
| CHEMICAL RESISTANCE                          |                    |                  |             |                     |
| --- OZONE                                    | ASTM D 1149        | FAIR             |             | FAIR                |
| --- DILUTE ACIDS AND BASES                   |                    | GOOD             |             | GOOD                |
| --- CONCENTRATED ACIDS AND BASES             |                    | NOT RECOMMENDED  |             | NOT RECOMMENDED     |
| --- OILS                                     |                    | GOOD             |             | GOOD                |
| --- SOLVENTS                                 |                    | FAIR             |             | FAIR                |
| TEMPERATURE RANGE                            |                    | -25° TO + 110° C |             | -25° TO + 110° C    |
| COLOUR                                       |                    | RAL 5012 BLUE    |             | RAL 5012 BLUE       |
| POLYMER CONTENT (%)                          |                    | 100              |             |                     |

**Test Name – Determination of Amount of extractives**

Method : With reference to US FDA 21 CFR 177.2 00

| Extractants     | Test Condition    | Amount of Extractives<br>mg/inch <sup>2</sup> | Acceptable limit<br>mg/inch <sup>2</sup> | Conclusion |
|-----------------|-------------------|---|--|------------|
|                 |                   | 1   |  |            |
| Distilled Water | 70 °C for 2 hours | 10  | 20                                       | Pass       |
| n-Hexane        | 70 °C for 2 hours | 100   | 175                                      | Pass       |

Note:

1. mg/inch<sup>2</sup> denotes Milligram per square inch
2. °C denotes Degrees Celsius