# HANWHA CLNA TR-8142EC

Low Density Polyethylene

Hanwha Chemical

## Message:

Hanwha Wire and Cable Compound CLNA TR-8142EC is a water tree retardant low density, crosslinkable polyethylene compound designed for medium voltage power cable insulation in service involving exposure to water. It has a extremely low level of contamination and proper balance of non-staining antioxidant and peroxide to ensure thermal stability and optimum cure levels

| General Information | |
|---|---|
| Additive | Antioxidation |
| Features | Antioxidation<br>Crosslinkable<br>Heat resistance, high<br>Thermal stability, good |
| Uses | Wire and cable applications<br>Medium voltage insulation |
| Agency Ratings | AEIC CS5<br>AEIC CS7<br>BS 6622<br>DIN VDE 0207, 2XI1<br>HD 620 S1<br>HD 632 S1<br>ICEA S-66-524<br>IEC 60502<br>IEC 60840<br>NEMA WC-7 |
| Forms | Particle |
| Processing Method | Extrusion |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 0.923 | g/cm³ | ASTM D1505 |
| Degree of Crosslinking | 82 | % | ASTM D2765A |
| Thermoset | 75 | % | IEC 60811-2-1 |
| Relative Bow-tie Tree Size [1] | | % | Internal method |
| Resistance to Water Tree Growth - 30 days [2] (25°C) | | % | ASTM D6097 |

| Hardness | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Durometer Hardness (Shore D) | 50 | | ASTM D2240 |

| Mechanical | Nominal Value | Unit | Test Method |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Tensile Strength | 19.6 | MPa | ASTM D638 |
| Tensile Elongation (Break) | 550 | % | ASTM D638 |
| Aging | Nominal Value | Unit | Test Method |
| Change in Tensile Strength in Air (150°C, 360 hr) | < 15 | % | ASTM D573 |
| Change in Ultimate Elongation in Air (150°C, 360 hr) | < 15 | % | ASTM D573 |
| Thermal | Nominal Value | Unit | Test Method |
| Brittleness Temperature | < -76.0 | °C | ASTM D746 |
| Electrical | Nominal Value | Unit | Test Method |
| Volume Resistivity | > 1.0E+16 | ohms·cm | ASTM D257 |
| Dielectric Strength | 22 | kV/mm | ASTM D149 |
| Dielectric Constant (1 MHz) | 2.28 | | ASTM D150 |
| Dissipation Factor (1 MHz) | 5.0E-4 | | ASTM D150 |
| Extrusion | Nominal Value | Unit | |
| Melt Temperature | 115 - 130 | °C | |
| Extrusion instructions | | | |
| Cure Temperature : 320-390°CLine Speed : 3-8 m/min | | | |
| NOTE | | | |
| 1. | Tree test conditions:<br>Frequency=1kHz, Applied<br>Voltage=5kV, 0.01M NaCl Solution. | | |
| 2. | Tree test conditions:<br>Frequency=1kHz, Applied<br>Voltage=5kV, 0.01M NaCl Solution. | | |



## Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China