

## Murtfeldt Muralen® Black Antistatic Polyethylene, Conductive

Category: Polymer, Thermoplastic, Polyethylene (PE), HDPE, High Density Polyethylene (HDPE), UHMW PE Ultra High Molecular Weight

## **Material Notes:**

Muralen® is based on high molecular weight polyethylene (PE-HMW) and is ideally suited for use in applications that require the generally impressive material properties of polyethylene. Because of its great cut, impact, and shock resistance, this material is often used to make underlays for cutting and punching machines and for ram guards. Special Properties: High cut resistance Good shock and impact absorption Good resistance to chemicals Good anti-adhesion properties Approved for use in the food industry (EU and FDA) Good weldability AntistaticInformation provided by Murtfeldt Kunststoffe GmbH & Co. KG.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Murtfeldt-Muralen-Black-Antistatic-Polyethylene-Conductive.php

| Physical Properties | Metric        | English          | Comments |
|---------------------|---------------|------------------|----------|
| Density             | <= 0.950 g/cc | <= 0.0343 lb/in³ | ISO 1183 |
| Molecular Weight    | 500000 g/mol  | 500000 g/mol     |          |

| Mechanical Properties            | Metric                    | English           | Comments   |
|----------------------------------|---------------------------|-------------------|------------|
| Hardness, Shore D                | 66                        | 66                | DIN 53505  |
| Ball Indentation Hardness        | 45.0 MPa                  | 6530 psi          |            |
| Tensile Strength                 | 25.0 MPa                  | 3630 psi          | ISO 527    |
| Elongation at Break              | 580 %                     | 580 %             | ISO 527    |
| Modulus of Elasticity            | 1.10 GPa                  | 160 ksi           |            |
| Charpy Impact, Notched           | >= 2.50 J/cm <sup>2</sup> | >= 11.9 ft-lb/in² | ISO 179    |
| Coefficient of Friction, Dynamic | 0.18                      | 0.18              |            |
| Sand Slurry                      | 350                       | 350               | value in % |

| Thermal Properties               | Metric                      | English                            | Comments  |
|----------------------------------|-----------------------------|------------------------------------|-----------|
|                                  | 200 μm/m-°C                 | 111 μin/in-°F                      |           |
| CTE, linear                      | @Temperature 23.0 - 60.0 °C | @Temperature 73.4 -<br>140 °F      |           |
| Thermal Conductivity             | 0.400 W/m-K                 | 2.78 BTU-in/hr-ft <sup>2</sup> -°F | ISO 52612 |
| Maximum Service Temperature, Air | 80.0°C                      | 176 °F                             |           |
|                                  | @Time 1.80e+7 sec           | @Time 5000 hour                    |           |
| Minimum Service Temperature, Air | -100 °C                     | -148 °F                            |           |



|                   |                   | <u> </u>                            |
|-------------------|-------------------|-------------------------------------|
| Metric            | English           | Comments                            |
| >= 1.00e+6 ohm-cm | >= 1.00e+6 ohm-cm | IEC 60093                           |
| >= 1.00e+9 ohm    | >= 1.00e+9 ohm    | IEC 60093                           |
|                   | >= 1.00e+6 ohm-cm | >= 1.00e+6 ohm-cm >= 1.00e+6 ohm-cm |

| Compliance Properties | Metric | English | Comments |
|-----------------------|--------|---------|----------|
| FDA                   | Yes    | Yes     |          |

| Descriptive Properties | Value | Comments |
|------------------------|-------|----------|
| Color                  | Black |          |

## **Contact Songhan Plastic Technology Co.,Ltd.**

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