



# Sanalite HDPE Cutting Board

## High Density Polyethylene Cutting Board

| Physical Properties            | Metric     | English                   | Comments                      |
|--------------------------------|------------|---------------------------|-------------------------------|
| Specific Gravity               | 0.96 g/cc  | 0.0347 lb/in <sup>3</sup> | ASTM D792                     |
| Water Absorption               | Max 0.01 % | Max 0.01 %                | Immersion, 24hr; ASTM D570(2) |
| Water Absorption at Saturation | Max 0.01 % | Max 0.01 %                | Immersion; ASTM D570(2)       |

### Mechanical Properties

|                            |            |              |                           |
|----------------------------|------------|--------------|---------------------------|
| Hardness, Shore D          | 70         | 70           | ASTM D2240                |
| Tensile Strength, Ultimate | 31.7 MPa   | 4600 psi     | ASTM D638                 |
| Elongation at Break        | 400 %      | 400 %        | ASTM D638                 |
| Tensile Modulus            | 1.38 GPa   | 200 ksi      | ASTM D638                 |
| Flexural Modulus           | 1.2 GPa    | 174 ksi      | ASTM D790                 |
| Flexural Yield Strength    | 31.7 MPa   | 4600 psi     | ASTM D790                 |
| Compressive Strength       | 31.7 MPa   | 4600 psi     | 10% Def., 73°F; ASTM D695 |
| Compressive Modulus        | 0.689 GPa  | 100 ksi      | ASTM D695                 |
| Coefficient of Friction    | 0.2        | 0.2          | Dry vs. Steel; QTM55007   |
| Izod Impact, Notched       | 0.694 J/cm | 1.3 ft-lb/in | ASTM D256 Type A          |

### Electrical Properties

|                                |                |                |           |
|--------------------------------|----------------|----------------|-----------|
| Surface Resistivity per Square | Min 1e+015 ohm | Min 1e+015 ohm | ASTM D257 |
|--------------------------------|----------------|----------------|-----------|

### Thermal Properties

|   |             |              |                               |
|---|-------------|--------------|-------------------------------|
| CTE, linear 68°F                            | 110 µm/m-°C | 61 µin/in-°F | (-40°F to 300°F); ASTM E831   |
| Melting Point                               | 127 °C      | 260 °F       | Crystalline, Peak; ASTM D3418 |
| Maximum Service Temperature, Air            | 82.2 °C     | 180 °F       | Long Term                     |
| Deflection Temperature at 1.8 MPa (264 psi) | 80 °C       | 176 °F       | ASTM D648                     |
| Flammability, UL94 (Estimated Rating)       | HB          | HB           | 1/8 inch                      |

### Qualitative Processing Properties

|                                   |                    |                           |
|-----------------------------------|--------------------|---------------------------|
| Compliance - FDA                  | Compliant          |                           |
| Machinability                     | 3                  | 1-10, 1=Easier to Machine |
| Service in Alcohols               | Acceptable Service |                           |
| Service in Aliphatic Hydrocarbons | Unacceptable       |                           |
| Service in Aromatic Hydrocarbons  | Unacceptable       |                           |
| Service in Chlorinated Solvents   | Unacceptable       |                           |
| Service in Ethers                 | Unacceptable       |                           |
| Service in Ketones                | Unacceptable       |                           |
| Service in Strong Acids           | Acceptable Service |                           |
| Service in Strong Alkalies        | Acceptable Service |                           |
| Service in Sunlight               | Limited Service    |                           |
| Service in Weak Acids             | Acceptable Service |                           |
| Service in Weak Alkalies          | Acceptable Service |                           |

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