

ABS, or Acrylonitrile Butadiene Styrene, is a versatile thermoplastic known for its impact resistance, durability, and easy processability. It is widely used in automotive, electronics, consumer goods, and various other applications where strength, chemical resistance, and affordability are important factors.

**Chemical Description**

| Description   | Value                               |
|---------------|-------------------------------------|
| Material Type | Amorphous Thermoplastic             |
| Chemical      | ABS Acrylonitrile Butadiene Styrene |
| Additives     | Unfilled                            |
| Color         | Natural                             |
| UV Resistant  | No                                  |

**Physical Properties**

| Property  | Maximum Unless Range is Specified |
|---|-----------------------------------|
| Density,lbs/in <sup>3</sup>   | 0.038                             |
| Water Absorption, 24 hrs, Immersion,% by wt.                          | 0.3                               |
| Coefficient of Linear Thermal Expansion, x10 <sup>-5</sup> in./in./°F | 5.3                               |
| Heat Defl ection Temp,°F at 263psi                                    | 215                               |
| Max Continuous Operating Temp,°F                                      | 140                               |
| Minimum Operating Temp,°F   | -4                                |
| Thermal Conductivity,BTU-in/ft <sup>2</sup> -hr-°F                    | 1.2                               |
| Flammability Rating,UL94  | HB                                |
| Dielectric Strength,V/mil   | 450                               |
| Dielectric Constant at 1 MHz  | 3.2                               |
| Dissipation Factor at 1 MHz   | 0.02                              |
| Surface Resistivity,ohm/square  | 10 <sup>^14</sup>                 |

**Mechanical Properties**

| Property              | Maximum Unless Range is Specified |
|-----------------------|-----------------------------------|
| Tensile Strength,ksi  | 5.1                               |
| Tensile Modulus,ksi   | 340                               |
| Yield Strength,ksi    | 37                                |
| Flexural Strength,ksi | 11                                |
| Flexural Modulus,ksi  | 320                               |
| Elongation at Break   | 25%                               |
| Hardness, Rockwell R  | 106                               |

The material properties in this datasheet are provided by one of the manufacturers collaborating with Naxtry. Please note that material properties may slightly vary among different manufacturers. Naxtry can accommodate customer requests for specific materials or brands.