

# Product Information

## NST6650HSL BK20

**NST6650HSL BK20** is a nylon 6.6 formulation, impact modified by reactive alloying to provide exceptional toughness, even when dry, as molded, and at low temperatures. This compound is stabilized, and together with 2% carbon black exhibits very good resistance to the effects of prolonged exposure to outdoor weathering, or other sources of ultra-violet light.

**NST6650HSL BK20** fully retains the excellent resistance to a broad range of chemicals, oils and solvents that is typical of nylon 6.6, and thus can be used successfully for demanding applications in harsh or aggressive environments.

### TYPICAL PROPERTIES

DRY AS MOLDED

<u>PROPERTY</u>	<u>ASTM TEST METHOD</u>	<u>ENGLISH</u>		<u>S.I.</u>	
		<u>UNITS</u>	<u>VALUE</u>	<u>UNITS</u>	<u>VALUE</u>
Melting Range	D789	°F	482-509	°C	250-265
Specific Gravity	D792	-	1.08	-	1.08
Water Absorption (24 hours immersion)	D570	%	1.2	%	1.2
Heat Deflection Temperature at 264 lbs/in <sup>2</sup> (1.82 MPa)	D648	°F	158	°C	170
Mold Shrinkage Guideline* (Flow Direction)	1/8" section	%	1.6	%	1.6
Tensile Strength at Yield	D638	lbs/in <sup>2</sup>	7,000	MPa	48
Elongation at Break	D638	%	10-30	%	10-30
Flexural Strength	D790	lbs/in <sup>2</sup>	10,700	MPa	74
Flexural Modulus	D790	lbs/in <sup>2</sup>	270,000	MPa	1,862
Izod Impact Strength (Notched, 1/8" specimen)	D256	ft. lbs/in of notch	10-15	J/m	534-800

**\*Please review shrinkages projections for specific applications with an MDE Technical Representative.**

All data generated using test specimens injection molded from black pigmented material. Inclusion of other additives may change some or all of these test results. Test specimens are stored in a moisture proof container immediately after molding and contain less than 0.2% moisture; tests are conducted at 23°C and 50% relative humidity unless otherwise stated.

These mechanical property test data have been developed using injection molded specimens tested under standardized conditions; furthermore, many of the mechanical properties of thermoplastic materials can be influenced by changes in processing conditions, environmental factors such as temperature and humidity, and rate of application of stress. Therefore, these test results, which characterize typical production material, should not be used either to establish specification limits or alone as the basis for engineering design.