Durethan® in Power Tool Application

Lanxess HK

Semi-Crystalline Product

Asia Pacific

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Design Specification of Power Tool Application

- High impact strength
- High heat resistant
- Good electric insulation
- Good shock or fracture resistance
- Good surface finishing
- Good colorability
- Good weatherability
- High chemical resistance
- Long use life

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Strengths of Durethan® (PA)

- High Strength and Impact Resistance
- High Heat Resistance (short-term:170-200°C, permanent service: 80-150°C)
- Good Electrical Insulating Properties
- High shock and fracture resistance (elastomer modified grade can even give high toughness at low temperature)
- High-Gloss or Textured
- Instead of Black and White, a wide range of color is available
- Excellent Chemical Resistance (fuels, lubricants, solvents and cleaning fluids)
- High low bearing capacity
- Low Tendency to Stress Cracking

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Application: Hammer Drill Housing

Hammer Drill Housing molded
in Durethan BKV 130

- Good Resistance to Dynamic Loading
- Good Impact and Break Resistance
- Stress Crack Resistance
- Good Flowability

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Application: Vacuum Cleaner Housing

- Good Resistance to Dynamic Loading
- Good Impact and Break Resistance
- Stress Crack Resistance
- Good Surface Quality

Vacuum Cleaner Housing
molded in Durethan BKV 30

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Application: Electric Plane Housing

Electric Plane Housing
molded in Durethan BKV 135

- Good Resistance to Dynamic Loading
- Good Impact and Break Resistance
- Stress Crack Resistance
- Good Flowability

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Suggestion Grades for Power Tool Application

BC 30-40 Grade

Description

- Polyamide 6, non-reinforced, polyolefin modified
- Impact modified

Properties

- High Tensile strength: 800- 1200 MPa (cond.)
- High Impact Strength: NB (Charpy at 23 deg, cond.)
- High heat resistance: UL 94 HB Class
- High electric insulation: CTI 600
- Excellent Chemical Resistance

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Suggestion Grades for Power Tool Application

BKV 30-60 Grade

Description

- Polyamide 6 with Glass Fiber (GF) Filled
- GF filled % can range from 15% to 60%
- Heat stabilized (H1.0 light color, H2.0 dark or black color)
- Easy Flow Grade available

Properties

- High Tensile strength: 3600 - 9600 MPa (cond.)
- High Impact Strength: 70 - 110 MPa (Charpy at 23 deg, cond.)
- High heat resistance: UL 94 HB Class
- High electric insulation: CTI 400 - 600
- Excellent Chemical Resistance

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Suggestion Grades for Power Tool Application

BKV 115-140, 215-240 Grade

Description

- Polyamide 6, elastomer modified, with Glass Fiber (GF) Filled
- GF filled % can range from 15% to 40%
- Heat stabilized (H1.0 light color, H2.0 dark or black color)
- Impact modified

Properties

- High Tensile strength: 2400 - 5200 MPa (cond.)
- High Impact Strength: 75 - 110 MPa (Charpy at 23 deg, cond.)
- High heat resistance: UL 94 HB Class
- High electric insulation: CTI 475 - 600
- Excellent Chemical Resistance

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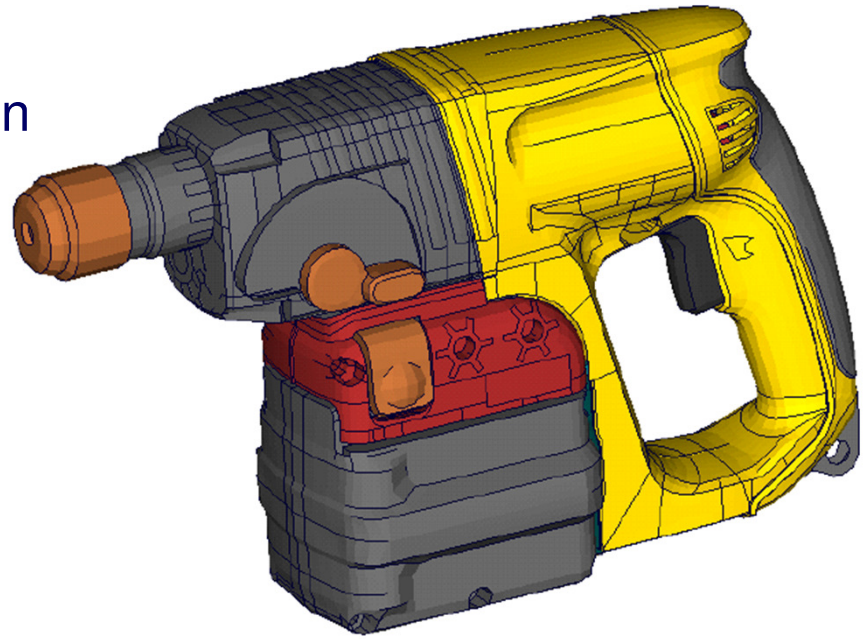
Technical Support for Power Tool Application

- Part and Mold Design
- Material Selection and Color Matching
- Moldflow Calculation
- Warpage and Mechanical Calculation
- On-Site Technical Support



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