



# **BKT Carbon ASTM & Clean Grades**

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Properties and Applications

# BKT Carbon

## Hard Grades

| Type                                       | ASTM Description | Particle Size (nm) | Iodine Number (g/kg) | OAN (cc/100g) | COAN (cc/100g) | NSA (m <sup>2</sup> /kg) | STSA (m <sup>2</sup> /kg) | Tint Strength (%) | Major Properties   | Major Applications  |
|--|------------------|--------------------|----------------------|---------------|----------------|--------------------------|---------------------------|-------------------|--|---|
| Super Abrasion Furnace (SAF)               | N110             | 15-22              | 145                  | 113           | 97             | 127                      | 115                       | 123               | High surface area provides High Tensile, Elongation, Tear Strength & abrasion Resistance.  | Off the road Tire tread for improved Tensile strength, Cut properties, Chip chunk resistance              |
|  | N115             |                    | 160                  | 113           | 97             | 137                      | 124                       | 132               |  |   |
|  | N134             |                    | 142                  | 127           | 103            | 143                      | 137                       | 131               | High surface area and Structure provides High Reinforcement. Easy Dispersion & processing. Improved tread wear.  | Tire Tread for improved Tread stiffness, Mileage and Fuel economy   |
|  | N121             |                    | 121                  | 132           | 111            | 122                      | 114                       | 119               |  |   |
| Intermediate Super Abrasion Furnace (ISAF) | N220             | 23-28              | 121                  | 114           | 98             | 114                      | 106                       | 116               | High reinforcement, Provides high tensile & EB. Good processing, High abrasion resistance  | Truck Bus radial, LCV, Passenger tread, Retreads, Conveyor belts. Mining equipment rubber components      |
|  | N234             |                    | 120                  | 125           | 102            | 119                      | 112                       | 123               | High Structure and Tint strength, Provides high Reinforcement and Stiffness  | Passenger Radial Tread, Retreads, Conveyor belts, Semiconductive components.                              |
|  | N299             |                    | 108                  | 124           | 104            | 104                      | 97                        | 113               | Low surface area High structure carbon black provides Low heat build up, High stiffness  | Passenger Radial Tread, Retreads, Conveyor belts for improved Rolling resistance and Abrasion resistance  |
| High Abrasion Furnace (HAF)                | N330             | 28-35              | 82                   | 102           | 88             | 78                       | 75                        | 104               | Provides Medium reinforcement, Easy dispersion & processing, Medium abrasion resistance  | Bias Truck, LCV, Passenger Tread, Base, SW, Conveyor belt, Retreads, MRG components, Tubes, Rubber Sheets |
|  | N326             |                    | 82                   | 72            | 68             | 78                       | 76                        | 111               | Low Structure, Provides Medium-High Reinforcement, Improved tensile, EB & Tear properties.   | Key Radial Tire components, OTR tread, Gaskets, MRG components  |
|  | N339             |                    | 90                   | 120           | 99             | 91                       | 88                        | 111               | Provides Medium to high reinforcement, High structure, Improved dispersion and Extruded surface appearance, Improved green strength, Improved stiffness & Abrasion resistance, High Tensile strength, Modulus & Hardness | Passenger Radial Tire Treads, Motorcycle Tire Tread/ SW, Retreads, Conveyor belt, MRG components          |
|  | N347             |                    | 90                   | 124           | 99             | 85                       | 83                        | 105               |  |   |
|  | N375             |                    | 90                   | 114           | 96             | 93                       | 91                        | 114               |  |   |

# BKT Carbon

## Soft Grades

| Type                           | ASTM Description | Particle Size (nm) | Iodine Number (g/kg) | OAN (cc/100g) | COAN (cc/100g) | NSA (m <sup>2</sup> /kg) | STSA (m <sup>2</sup> /kg) | Tint Strength (%) | Major Properties   | Major Applications   |
|--------------------------------|------------------|--------------------|----------------------|---------------|----------------|--------------------------|---------------------------|-------------------|--|--|
| Fast Extrusion Furnace (FEF)   | N550             | 38-45              | 43                   | 121           | 85             | 40                       | 39                        | --                | Provides Medium reinforcement, High green strength, Smooth surface, High modulus, Hardness,                            | Cable jackets, Extruded profiles, MRG components, Hose, Seals, Tire inner liner.   |
| General Purpose Furnace (GPF)  | N650             | 50-70              | 36                   | 122           | 84             | 36                       | 35                        | --                | Provides Medium reinforcement, high structure, Smooth processing & finish, High hardness and Modulus                   | Cable jackets, Extruded profiles, MRG components,                                  |
|                                | N660             |                    | 36                   | 90            | 74             | 35                       | 34                        | --                | Provides Medium to low Reinforcement, Easy processing, Low heat build up   | Bias Tire carcass, Radial Tire inner liner, Automotive Tube, Hose, MRG components, |
| Semi Reinforcing Furnace (SRF) | N762             | 70-100             | 27                   | 65            | 59             | 29                       | 28                        | --                | Provides Low reinforcement, High EB and Low Compression set, Low heat build-up, Improved Dynamic flexing               | Rubber Sheet, Mats, Hose, Gaskets and MRG components                               |
|                                | N772             |                    | 30                   | 65            | 59             | 32                       | 30                        | --                |  |  |
|                                | N774             |                    | 29                   | 72            | 63             | 30                       | 29                        | --                | Provides Medium to low Reinforcement, Easy processing, High green strength, Low heat build-up, superior surface finish | Extruded profiles, Rubber Sheet, Mats, and MRG components.                         |
|                                | N765             |                    | 31                   | 115           | 81             | 34                       | 32                        | --                |  |  |



# BKT Carbon

## Clean Grades

| Grades  | Major Properties  | Major Applications   |
|---------|---|--|
| N220 LG | Low Grit (LG) grades are manufactured via a Special process, resulting in exceptional cleanliness of the grades and excellent dispersibility in rubber compounds. These grades require much less screen changes during compound extrusion, resulting in improved production efficiency. These grades impart superior surface finish as compared to corresponding ASTM grades. LG grades are known for their improved Reinforcement, Air/gas impermeability, and Superior Dynamic performance. | Auto components, Tire Curing Bladder   |
| N330 LG |   | Auto-components, tubes, Vibration isolators  |
| N326 LG |   | Key Radial tire components, vibration isolators, gaskets, MRG components             |
| N550 LG |   | Auto components, Class A surface weather strips, Hose, seals                         |
| N660 LG |   | Auto components, tire innerliner, tube, high pressure hose                           |
| N650 LG |   | MRG components requiring high green strength, extruded profiles , high pressure hose |
| N772 LG |   | Injection molded parts, Auto components, Hose  |

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