

BAR

A long product that is 1/4 inch (6.35 mm) or more in diameter, having round, square, octagonal or hexagonal cross-sections.

BILLET

A long product with a diameter range of 8 to 14 inches (203 to 356 mm). Can either be sold in billet form or processed further to make other long products.

COMMODITY FLAT-ROLLED PRODUCTS

A classification that includes the Flat-Rolled Products segment's stainless steel hot and cold rolled sheet and plate products along with silicon electrical steel and tool steel products.

COORDINATED BUSINESS DEVELOPMENT

A strategic growth initiative that provides the commercial framework to identify and develop plans and tactics for market and product growth across the Company's business segments and operating companies.

EXOTIC ALLOYS

The Company's classification for its zirconium, niobium, hafnium and tantalum products.

FLAT-ROLLED PRODUCTS

A product form classification that includes plate, sheet, strip and Precision Rolled Strip® products.

HAFNIUM

An exotic alloy usually obtained as a by-product of zirconium production with outstanding corrosion resistance and good mechanical properties. It is added to specialty alloys for use in jet engine parts and as control rod material in nuclear reactors.

HIGH PERFORMANCE METALS

A classification that includes the Company's nickel-based and cobalt-based alloys and superalloys, titanium and titanium alloys, specialty steel and exotic alloy products, primarily in the form of long products. These products typically exhibit any of the properties of high temperature resistance, high strength and high temperature oxidation resistance.

HIGH VALUE FLAT-ROLLED PRODUCTS

A classification that includes the Flat-Rolled Products segment's Precision Rolled Strip®, standard strip, super stainless steel, nickel-based alloy and superalloys and titanium and titanium-based products. These products typically are at the higher end of the segment's product price range and are characterized by direct technical and service relationships with customers.

INGOT

A product form resulting when molten metal is cast into molds, which can be round, square, or rectangular. Can either be sold in ingot form or processed further to make other products.

LONG PRODUCTS

A product form classification that includes ingot, billet, bar, rod and wire.

NICKEL-BASED SUPERALLOYS

Nickel-based alloys developed for very high temperature service where relatively high stresses are encountered and where high surface stability is frequently required. Typical applications are aircraft turbine and land-based turbine components.

NIObIUM

An exotic alloy valued for its strength at extremely high temperatures and its ability to superconduct, or pass electricity with minimal resistance, at very low temperatures. It is used in aerospace applications, in superconducting magnets in MRI (magnetic resonance imaging) equipment, when alloyed with titanium, and in particle accelerators.

OPERATIONAL EXCELLENCE

A comprehensive continuous improvement system based on lean manufacturing principles and focused on improving safety, reducing costs, shortening lead times, reducing inventory and improving customer satisfaction.

PLATE

A flat-rolled product that is 3/16 inch (4.76 mm) thick, or greater, and over 10 inches (254 mm) wide.

PRECISION ROLLED STRIP® PRODUCTS

Flat-rolled products including stainless steel, nickel-based alloys, titanium and titanium alloys, and carbon steel under 0.015 inch (0.38 mm) thick and up to 48 inches (1,219 mm) wide, as well as certain strip products with special tempers and thicknesses.

ROD

A long product that is from 0.118 (3 mm) to 3/4 inch (19 mm) in diameter.

SHEET

A flat-rolled product that is 24 inches (610 mm) and over in width and less than 3/16 inch (4.76 mm) thick.

SILICON ELECTRICAL STEEL

Iron-based alloys containing silicon (typically 3.5%) as the major alloying addition. These steels are used generally in applications such as power transformers where electrical conductivity and magnetic properties are important.

STAINLESS STEEL

A broad classification of iron-based alloys containing at least 10% chromium, known for excellent corrosion and heat resistance. Austenitic (Chrome-Nickel) grades contain 18% to 30% chromium and 6% to 20% nickel for enhanced surface quality and formability and increased corrosion and wear resistance. These grades are used in appliances, kitchen utensils, processing

equipment and a variety of industrial applications. Ferritic (Chrome) grades are non-nickel-bearing and contain 11% to 17% chromium content for greater inherent strength and corrosion resistance than carbon steel. These grades are often used in automotive exhaust systems.

STRIP

A flat-rolled product 3/8 inch (9.5 mm) to under 24 inches (610 mm) wide and less than 3/16 inch (4.76 mm) thick. See also Precision Rolled Strip® Products.

SUPERALLOY

An alloy, usually based on nickel, cobalt or iron, developed for high temperature service where relatively severe mechanical stressing is encountered and where high surface stability is frequently required.

SUPER STAINLESS STEEL

Stainless steel alloys with significant additions of chromium, nickel, molybdenum or copper. Super stainless steel is used in chemical processing, petroleum refining, marine, heat treating, pollution and waste control industries where there are requirements for extra corrosion protection, strength or heat resistance.

TANTALUM

An exotic alloy having high corrosion resistance; used for medical implants, chemical process equipment and aerospace engine components.

TITANIUM

Titanium and its alloys have very high strength-to-weight ratios. At normal temperatures, they have high resistance to corrosion. Used primarily in aerospace and chemical processing applications.

TUNGSTEN MATERIALS

Include tungsten and tungsten carbide powders, sintered tungsten carbide products and cutting tools for the metalworking, mining, oil and gas, and other industries requiring tools with extra hardness.

WIRE

A long product that is from 0.030 inch (0.76 mm) to 1/4 inch (6.35 mm) in diameter, in round, square, octagonal or hexagonal cross-sections.

ZIRCONIUM

An exotic alloy valued for its strength, high corrosion resistance, and low thermal neutron absorption. Applications include nuclear reactors, marine vessels, commercial power generation, and those requiring contact with strong acids and basic environments.

For further information and additional definitions, please see [Glossary of Terms by visiting us at www.alleghenytechnologies.com](http://www.alleghenytechnologies.com).