

1. amorphous	materials characterised by certain areas of short-range order; a long-range order does not exist in amorphous substances	14. elastic limit	the portion of the stress-strain relationship within which a material when loaded and then unloaded will return to its original un-deformed shape; this also equates to the end of the straight line portion of the stress-strain curve
2. anisotropy	engineering property that refers to having a different value when measured in different directions	15. energy	the ability to do work and is measured in joules (J)
3. asbestos	hydrated magnesium silicate; the most common type is fibrous chrysotile (white asbestos); asbestos fibres are variable in length and may be straight or curled	16. engineering stress	calculated using the ratio of the applied load (L) to the undeformed (original) cross-sectional area (A)
4. austenite	a face-centred cubic phase in the iron-carbon phase diagram designated as gamma phase, austenite consists of non-magnetic solid solution of carbon in iron	17. friction	a force generated between surfaces opposite to the direction of motion
5. band brake	early version of brake involving an external contracting band wrapped around a hub	18. friction dust	a granular, free-flowing polymerised resin derived from cashew nut shell liquid (CNSL); the main component in processed CNSL is cardanol; cardanol is a naturally occurring material, hydrophobic in nature, and remains flexible and liquid at very low temperatures
6. castability	the relative ease with which a material may be cast	19. Hooke's law	stress is directly proportional to strain within a material's proportional limit
7. cast iron	an alloy of iron and carbon in which the carbon is in excess of the amount that can be retained in solid solution in austenite at the eutectic temperature; carbon is usually present in the range of approximately 2% to 4.5%	20. hydraulics	the branch of science that deals with the study and use of liquids, as related to the mechanical aspects of physics; it studies the flow of fluids for which there is virtually no density change
8. ceramic	a multi-phase material containing phases composed of compounds of metals and non-metals, ceramics are typically hard and good insulators		
9. coefficient of friction	a ratio of the forces between two surfaces in contact		
10. composites	multi-phase materials formed from a combination of materials which differ in composition or form; remaining bonded together these individual components of composites combine to improve upon the original properties of the component materials		
11. compression	applying pressure to an object to reduce its size or make smaller, a pushing or squeezing force		
12. corrosion	a chemical reaction that results in the conversion of metallic materials into oxides, salts or other compounds; metals undergoing corrosion lose their strength, ductility and other important mechanical properties		
13. ductility	the ease with which a material deforms plastically while undergoing tensile forces such as drawing		