ENGINEERING MATERIAL



Chandan Saurav Sahoo

1. What are composite materials?
2. How are composite materials classified?
3. What is the function of matrix materials?
4. What are the type of composites based on the matrix materials?
5. What are fibre reinforced plastics and its types?
6. What is fibre reinforced metals?
7. What are the advantages of composites?
8. What are the limitation of composites?
9. Mention the application of composites?
10. What are ceramic materials?
11. What are natural ceramic materials?
12. What are traditional ceramic materials?
13. Give classification of ceramics based on crystal structure.
14. What is crystalline ceramics?
15. What are non-crystalline ceramics?
16. What are bonded ceramics?
17. Mention the steps for the processing of ceramic materials.
18. What are ceramic fibers?
19. What is Meant by Normalising?
20. What is Meant by Annealing?
21. Purposes of Annealing
22. Application of Annealing
23. Types of Annealing
24. What is the Purpose of Heat Treatment
25. What is the Definition of Heat Treatment.

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- 26. Write the Principles of Heat Treatment
- 27. What are the Stages of Heat Treatment Process
- 28. What is Quenching?
- 29. What is meant by Hardenability?
- 30. Describe Hardness Vs Hardenability
- 31. What is Tempering?
- 32. What are the Objects of Tempering
- 33. What are Metals?
- 34. What are the Characteristics of Metals
- 35. What are the Types of Metals
- 36. What are Medium-Carbon Steels?
- 37. What are High-Carbon Steels?
- 38. Characteristics of High-Carbon Steels
- 39. Applications of High-Carbon Steels
- 40. What are Alloy Steels?
- 41. Purpose of Alloying
- 42. What are the Classification of Alloy Steels
- 43. What are Low Alloy Steels?
- 44. What are High Alloy Steels?
- 45. What are the effect of alloying elements in steels
- 46. What are Stainless Steels?
- 47. What is the Effect of Cr on Stainless Steel
- 48. What are Types of Stainless Steels
- 49. What are Tool Steels?
- 50. Write Properties of Tool Steels
- 51. What is Cast Iron
- 52. Write Composition of Cast Iron
- 53. Write the composition of the alloy called bronze. Give two uses of bronze.

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- 54. What is crystal imperfections.
- 55. what is crystal.
- 56. What materials are used in bearings?
- 57. What are the properties of bearing material?
- 58. What is the most commonly used spring material?
- 59. What are the properties of spring material?
- 60. What is the strongest material for springs?
- 61. What materials are used to manufacture springs?
- 62. What is a polymer?
- 63. Define thermoplastics and thermosetting polymers with two examples of each.
- 64. Differentiate between thermoplastic and thermosetting polymer.
- 65. Write the Properties and application of thermoplastic polymer?
- 66. what is phase diagram?
- 67. List any four attractive characteristics of polymers.
- 68. Classify polymers.
- 69. What is the best antibacterial metal?
- 70. Define Engineering Materials?
- 71. What are the main types of Engineering materials?
- 72. What is the importance of Engineering Materials?