

## PLASTICS TEST

1. Polymers are so called because? They are a link of many chemical mers,  
They are a link of many chemical mers, They are plastic co-mers, They were  
named by James Poly and Ralph Mer, They consist of polys
2. Plastics are?, All of the above, Naturally found in nature like wood, Manufactured by  
people, Formed by nature, All of the above
3. The two basic types of plastic are?, Thermoplastic and thermosetting, Thermographic  
and PVC, Liquid and solid, Dynamic and static, Thermoplastic and thermosetting
4. Which of the following career positions is essential to the plastics industry?, All of the  
above, Die makers, Chemists, Mold makers, all of the above
5. The three general categories of plastics industries are?, Manufacturer-processor-  
fabricator, Manufacturer-processor-fabricator, Manufacturer-fabricator-  
consumer, Manufacturer-processor-consumer, Manufacturer-maker-processor
6. In the process known as blow-molding plastic is?, Blown and stretched into a mold,  
Stretched and blown-up into the air, Blown-up and pressed into shape, Blown and  
stretched into a mold, Blown and melted
7. The process of calendering plastic is?, Rolling plastic into sheets or film, Pressing  
plastic into blocks, Rolling plastic into sheets or film, Melting sheets into the shape of a  
calender, Shaping into plastic Cylinders.
8. Compression molding involves?, Melting and squeezing plastic into a mold, Melting  
and squeezing plastic into a mold, Compressing plastic blocks with a hydraulic press,  
Melting plastic with a torch, Compressing plastic into a blow-press
9. Extrusion of plastic is most commonly used to produce?, Rods, Rods, Buttons for  
clothes, Hangers for clothes, Tennis shoe soles
10. Injection molding would be a good process for making?, Buttons, Book Laminates,  
Plastic windows, Buttons, Hollow plastic balls
11. Rotational molding uses which of the following elements?, All of the above, Resin,  
Centrifigal force, Heat, All of the above
12. Thermoforming plastic usually requires which of the following?, All of the above,  
Sheet plastic, Vacuum, Heat ,All of the above
13. Which of the following methods would be the best method for putting a plastic  
covering on a hammer handle?, Solvent molding, Solvent molding, Injection molding,  
Blow molding, Rotational molding

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14. Thermoplastic materials become what when heated?, Soft, Hard, Brittle, Soft, Liquid
15. Thermoplastic materials become what when they cool?, Hard, Hard, Brittle, Soft, Liquid
16. Which of the following is not a type of plastic?, Cellulite, Epoxy, Melamine, Polyester, Cellulite
17. Which of the following plastics is used the most for its bullet-proof properties?, Lexan, Lucite, Plexiglas, Lexan, Armor All
18. Plastics generally use the same tools to form it as?, Wood, Metal, Wood, Glass, Cloth
19. Acrylic plastic is usually polished using a?, Buffer, 60 grit sandpaper, Buffer, Rasp, Circular sanding pad
20. Threading plastics is?, Done with a tap or die, Impossible, Done with a drill and a screw, Done with a tap or die, A molding with heat procedure
21. Acrylic plastic is best bent/formed at what temperature?, 220-300 degrees, 100-200 degrees, 530-800 degrees, 300-550 degrees, 220-300 degrees
22. If plastic is pliable when heated-it means?, Softened, Liquid, Hard, Softened, Rigid
23. Carving in lucite or plexiglas is usually done with a ?, High speed cutting tool, High speed cutting tool, Chisel & mallet, Hot ice pick, Cross-cut saw
24. When gluing plastics the glue usually?, Melts parts together, Melts parts together, Burns holes, Leaves a large caulk-like bead, Doesn't work well
25. Fiberglass is considered to be?, Reinforced polyester plastic, Not plastic, A glass-type plastic, Unreliable, Reinforced polyester plastic
26. Which of the following are considered to be properties of fiberglass?, It's very strong, It rusts, It's very strong, It corrodes easily, It's a poor insulator
27. When plastic resin and a catalyst are combined what occurs?, Hardening, Hardening, Softening, Fire, Glass
28. Plastic is used for illumination because of its ability to?, Refract-intensify-direct, Refract-intensify-direct, Shine-sparkle-glow, Bend-shine-Sparkle, All of the above
29. Which of the following is not a good way to fasten plastics?, Nails, Glue, Machine

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screws, Screws, Self-tapping screws, Nails

30. The invention of plastic was originally developed as a replacement for what dwindling resource?, Rubber, Wood, Rubber, Metal, Glass

31. Plastic is added to concrete to make it more?, Flexible, Rigid, Pliable, Flexible, Lighter

32. Which of the following has no man made plastic in its composition?, Plywood, Cotton polyester shirt, Windshield for a car, Formica countertop, Plywood

33. A polymer must be able to withstand stretching to how many times its length to be considered an elastomer?, Twice, Three times, Four times, Twice, Once

34. A thermoset polymer has which of the following properties when heated?, Becomes rigid and stays rigid, Becomes soft then hardens, Becomes hard then softens, Becomes rigid and stays rigid, Becomes soft and stays soft

35. Synthetic polymers are sometimes called?, Engineered materials, Engineered materials, Plastic goo, Resin glue, Fake plastic

36. An adult fleece jacket made from recycled plastic bottles would require about how many bottles?, 25, 10, 15, 20, 25

37. Crazing of plastic refers to what?, Fine cracking of the surface, Ultraviolet destruction, Fine cracking of the surface, Turning of color, All of the above

38. Which of the following are a type of man made plastic?, Asphalt, Asphalt, Ivory, Amber, Sheet metal

39. The first artificial plastic material was?, Celluloid, Casein formaldehyde, Cellulose acetate, Celluloid, ABS

40. Nylon is a type of plastic known as?, Polymides, Polyethylene, Polyester, Polymides, Polypropylene

41. Which of the following plastics are heavily used in clothing?, All of the above, Polyester, Polypropylene, Polymides, All of the above

42. About how many plastic bottles amount to a ton of waste?, Twenty thousand, One thousand, Ten thousand, Twenty thousand, One million

43. Producing plastic from scrap rather than virgin materials would save what percent of energy?, 85-90%, 85-90%, 40-50%, 60-70%, 95-100%

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44. The name of the plastic which is considered to be the industry starter was?, Bakelite, Teflon, Bakelite, PVC, Acrylic
45. Which of the following are considered to be natural plastics?, All of the above, Shellac, Rubber, Cellulose, All of the above
46. Bakelite was patented in what year?, 1910, 1954, 1910, 1895, 1702
47. Which plastic played an important part in WWII?, Bakelite, Bakelite, Acrylic, Fiberglass, Vinyl
48. Which of the following is considered to be a linear thermoplastic?, PVC, Epoxy, Peek, Melamine, PVC
49. Which of the following is an additive used to improve plastic?, All of the above, Biocide, Ultraviolet stabilizer, flame retardant, All of the above
50. Which of the following is not a plastics reinforcement material?, Iron ore, Carbon, Mica, Iron ore, Glass
51. The plastic with a higher stiffness (tensile modulus) value than steel is?, Graphite-epoxy, Polyester, Graphite-epoxy, Acrylic, Cast epoxy
52. The Izod test is done by clamping the plastic and hitting the surface with a sudden impact after what is done to the specimen?, It's notched, It's heated, It's bent, It's notched, It's sanded roughly
53. The Gardener impact test to test plastic involves?, Dropping a shaped weight onto the surface, Dropping a shaped weight onto the surface, Dropping the plastic onto ball bearings, Hitting the plastic with a gardenening hoe, Stepping on the plastic with cleated shoes
54. Epoxy has a higher deflection temperature than?, Acrylic, Nylon, Silicon, Acrylic, All of the above
55. The conductivity of plastics is how many times poorer than metal?, 300-2500, 1-2, 100-200, 200-1500, 300-2500
56. Plastics are often attacked by which of the following?, All of the above, Fungi, Sunlight, Ambient moisture, All of the above
57. Plastic that is 5 mils thick is?, .005 inch thick, .05 inch thick, .005 inch thick, .5 inch thick, .0005 inch thick

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58. Haze of plastic refers to?, Cloudiness, Yellowness index, Light transmittance, Cloudiness, Refraction
59. The best coolant when machining plastic is?, Water, Oil, Water, Alcohol, Shellac
60. The shot capacity of an injection molder refers to?, The amount it can inject into a mold, The amount it can inject into a mold, The speed it works at, The way the plastic moves, The size of the mold
61. A gallon plastic milk bottle is produced by what process?, Blow molding, Injection molding, Casting, Calendering, Blow molding
62. The most common calendered material is?, PVC, Epoxy, Polyester, PVC, Bakelite
63. If plastic gives off volatiles it's called?, Outgassing, Smelly, Outgassing, Ventilation anomole, Outsourcing
64. The best tool for layout work on unmasked sheet plastic is?, Scribe, Marker, Pencil, Scribe, Ink pen
65. Plastic should be drilled at what speed?, Slow-medium, High, Slow-medium, Fast, None of the above
66. When working with resins one should always have?, All of the above, Good ventilation, Knowledge of flammability of the product, goggles, All of the above
67. Cohesion of plastic refers to?, Melting parts together, Melting parts together, Painting plastic, Coloring plastic, Scribing plastic
68. Fiberglass is what form of plastic?, Reinforced laminate, Laminate, Reinforced laminate, It's not plastic, Sheet plastic
69. Casting involves?, Pouring liquid into a mold, Pouring liquid into a mold, Shaping around a mold, Blowing air over a mold, None of the above
70. Molding plastic involves?, Shaping around a mold, Pouring liquid into a mold, Shaping around a mold, Blowing air over a mold, None of the above
71. Which of the following would be a poor choice to clean plastic?, Lacquer thinner, Soft rag, Laquer thinner, Soap and water, Air
72. Which of the following careers could not be used in the plastic industry?, None of the

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above,Chemist,Diemaker,Material analyst,None of the above

73. A shiny covering on a textbook is what form of plastic?,Laminate,Blow molding,Extrusion,Laminate,Casting

74. A bed liner for a pickup truck made of plastic was probably formed by?,Vacuum forming,Casting,Extrusion,Laminate,Vacuum forming

75. A solid plastic steering wheel would be formed by which of the following methods?,Casting,Casting,Dipping,Laminate,Vacuum forming

76. The best reason of the following choices for providing plastic parts for vehicle bodies is?,Durability,Cheap,Durability,Color,Rustability

77. A 4'x8' piece of 24 gauge galvanized sheet metal would be what in comparison to a 4'x8' piece of Lexan?,Much cheaper,Much cheaper,Much more expensive,No difference in cost,Close in cost

78. A hardened steel mold can withstand about how many molding cycles of injection?,500000-2000000,500-1000,1000-5000,10000-30000,500000-2000000

79. Injection molding pressures in industry can range as high as?,20000psi,50psi,1000psi,10000psi,20000psi

80. Injection molding is capable for applications in industry that require productions as large as?,Billions,Billions,Millions,Thousands,Hundreds

81. PVC is naturally fire resistant due to its?,Chlorine content,Water content,Chlorine content,Resin content,Acid content

82. PVC is usually?,Opaque,Clear,Opaque,Translucent,Invisible

83. The fog on the inside of a car windshield which forms during the summer is a result of what migrating from the plastic dashboard?,Plasticizer,Dye,Acid,Plasticizer,Pheromones

84. Vinyls by volume are 55% what?,Chlorine,Rubber,Salt,Chlorine,Plastic

85. The root word of plastic comes from the word plastikos which is of what origin?,Greek,French,Greek,Spanish,Irish

86. Urea was discovered in 1773 and laid the foundation for pheno-formaldehyde plastics which was found in what substance?,Urine,Urine,Water,Rubber,Uranium

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87. Acrylic plastic sheet is attacked by which of the following chemicals?,All of the above,Gasoline,Methyl alcohol,Toluene,All of the above
88. Acrylic plastic will become what when exposed to cold weather?,Uneffected by cold,Warm,Brittle,Soft,Uneffected by cold
89. Plexiglas mirror is vacuum metallized with what?,Aluminum,Thin steel,Plastic foil,Aluminum,Copper
90. Paper masking placed on sheet plastic is there to?,Protect during shipping,Protect during shipping,Keep from yellowing,To allow marking with pen,All of the above
91. Plexiglas skylights should use a minimum thickness of?,1/4",1/2",1",1/4",3/4"
92. A running crack in acrylic sheet can be stopped by?,Drilling an 1/8" hole at each end of the crack, Drilling an 1/8" hole at each end of the crack,Pouring super glue on the crack,Blowing it with a hair dryer for 10 minutes,Rubbing it immediately with a hot match
93. The best way to remove a scratch on sheet plastic is?,150-600 grit paper working your way up-then a buffer,100 grit sandpaper then a buffer, 150-600 grit paper working your way up-then a buffer,Steel wool,None of the above
94. Vinyl siding became more abundant because of the incorporation of what?,UV stabilizers,Fade discriminators,Plasticizers emollient,UV stabilizers,All of the above
95. The smell coming from a plastic shower curtain is a result of migrating what?,Plasticizers,Molecules of ammonia,Plasticizers,Residual casting emollient,Stabilizers
96. Some recylers use electrostatic separation to sort plastics which means?, Machines sort by static volume/content, It's sorted by electricity, Machines sort by static volume/content,An electric prod-rod is used to produce a charge on plastics,The materials are sorted on an electric belt
97. The calorific (heat) value of plastic is high & similar to that of?,Oil,Oil,Wood,Methane,Solid waste