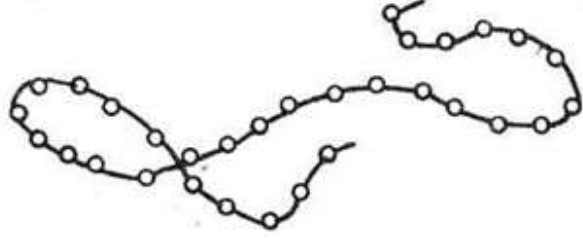


This figure shows the molecular structure of ().

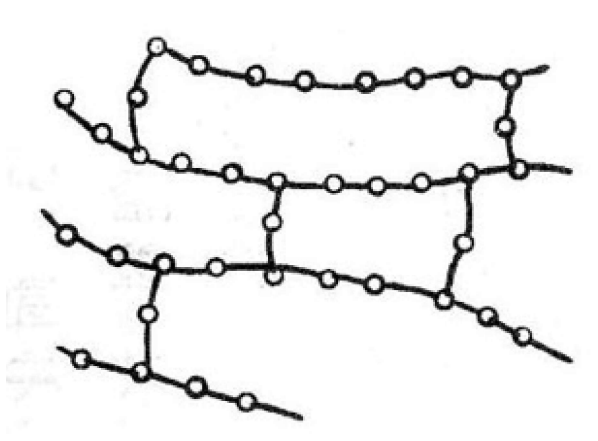


A thermoplastics

B thermosets

提交

This figure shows the molecular structure of ().



A thermoplastics

B thermosets

提交

Both thermoplastics and thermosets are suitable for extrusion.

A

Ture

B

False

提交

In extrusion of plastics, both the heaters around the extruder's barrel and the internal friction from the mechanical action of the screw heat the pellets and liquefy them.

A True

B False

提交

The correct descriptions of the screw in extruder include:

- ☐ A The rotating movement of the screw blends the pellets and conveys them down the barrel.
- ☐ B The internal friction from the mechanical action of the screw helps to melt the plastics.
- ☐ C The screw action builds up pressure in the barrel.
- ☐ D The screw moves forward to force the molten plastic through a die.

提交

Controlling the rate and uniformity of cooling is important to minimize shrinkage and distortion of the extruded products.

A True

B False

提交

Which one of the followings is NOT the product of extrusion of plastics?

- A cup
- B pellet
- C pipe
- D sheet

提交

Just like metal extrusion, the extrusion of plastics is also a batch or semicontinuous process.

A True

B False

提交

Because there is a continuous supply of raw material on the hopper, long products with constant-section can be extruded.

A True

B False

提交

Process parameters in extrusion of plastics include:

A barrel-wall temperatures

B cooling and drawing speeds

C die design

D extruder-screw speed

提交

Extruders are generally rated by:

- ☐ A the diameter D of the barrel
- ☐ B the diameter D of the screw
- ☐ C the length L of the screw
- ☐ D the length-to-diameter (L/D) ratio of the barrel

提交

Extrusion equipment costs relatively high including the cost for the equipment for downstream cooling and winding of the extruded product. Large production runs are generally required to justify such an expenditure

A

Ture

B

False

提交

In injection molding, the pellets or granules are fed into the heated cylinder and the melt is forced into a mold cavity.

A True

B False

提交

Which one of the following injection machines is more suitable for making large parts?

- A The hydraulic plunger type
- B The reciprocating screw type

提交

Injection molding can not be used for thermosets.

A

Ture

B

False

提交

For thermoplastics, the Injection molds are relatively cool. But thermosets are molded in heated molds, where polymerization and cross-linking take place.

A

Ture

B

False

提交

In cold-chamber die casting, the solidified plastic in the channels that connect the mold cavity to the end of the sprue must be removed, usually by trimming.

A True

B False

提交

In cold-chamber die casting, the runner system is separated from the part when the mold opens.

A

True

B

False

提交

In hot-runner mold, also called runnerless mold, because there is no gate, runner, or sprue, the molten plastic is injected into the mold cavity directly from the barrel.

A True

B False

提交

Mold design and the control of material flow in the die cavities are important factors in the quality of the injection molded parts.

A

Ture

B

False

提交

Injection pressure is a force applied to close the molds during injection, to prevent the molten plastics from flowing outward of the mold cavity and forming flash.

A

Ture

B

False

提交

Injection-molding machines are rated according to:

A the diameter D of the barrel

B the length L of the barrel

C the capacity of the mold

D the clamping force

提交

The correct descriptions of injection molding include:

A

It is essentially the same process as hot-chamber casting.

B

Just as in extrusion, the barrel is heated to promoted melting.

C

Because the material is molten when injected into the mold, complex shapes and good dimensional accuracy can be achieved.

D

The high cost of dies and machines means that high-volume production is necessary to justify such an expenditure.

提交

Blow molding is a modified extrusion- and injection-
molding process.

A True

B False

提交

Blow molding can not be used for thermosets.

A

Ture

B

False

提交

Which one of the following is NOT the product of blow molding?

- A beverage bottle
- B hollow container
- C plastic film
- D parison

提交

In thermoforming, because of the low strength of the material, the pressure differential caused by the vacuum is usually sufficient for forming.

A True

B False

提交

Thermoforming can not be used for thermosets.

A

Ture

B

False

提交

The correct descriptions of thermoforming include:

- A

Because thermoforming is a drawing and stretching operation, the material should exhibit high uniform elongation.
- B

Thermoplastics have high capacities for uniform elongation.
- C

Parts with openings or holes CANNOT be formed by thermoforming.
- D

Hight strength is not a requirement for molds used in thermoforming.

提交

The sheet or film used in thermoforming is made by:

- A compression molding
- B blow molding
- C extrusion
- D injection molding

提交