

Some exam questions from last year

From Massow:

1. What are the Main steps for material selection? (Translate, screen, Rank, document, local factors)
2. The 4 steps within Translation? (Function, Constraints, objectives, free variables)
3. Shape factors and what mechanical efficiency mean.

From Schillfahrt:

1. Name 5 material properties with units.
2. What bonding do we know for Plastics and ceramics? Ionic, convalent, Dipole-Dipole, Dispersions forces, Hydrogen forces.
3. And the last one was Matching the Temperature/stress curves and the corresponding use temperatures

Schillfahrt -

- 1) What are the 6 properties of composite for Polymer Matrix Composites?
- 2) Identify the 4 types of polymers, draw them and explain them how different they are.
- 3) If u have to design a object with strain at 1,5%, Tmax at 40°C, what do you do in order to determine elastic modulus?

From Massow -

- 1) Explain the 7 steps in the translation procedure
- 2) When u don't have as much free variables as needed for the substitution, what is the procedure?
