



SNS COLLEGE OF TECHNOLOGY



[An Autonomous Institution]

Coimbatore - 35

19BAT612 - Operations Management

Unit 5 – Purchasing

Topic: Selection of Materials



Recall

- Materials Selection
- Product Analysis



What Properties?

- Mechanical –
Strength, modulus etc.
- Physical –
Density, melting point.
- Electrical –
Conductivity, resistivity.
- Aesthetic –
Appearance, texture, colour
- Processability –
Ductility, mouldability
- And last, but not least.....
Cost, cost, cost!



Where do I find the data?

- Textbooks
- Data books
- Manufacturer's literature
- Internet Sites

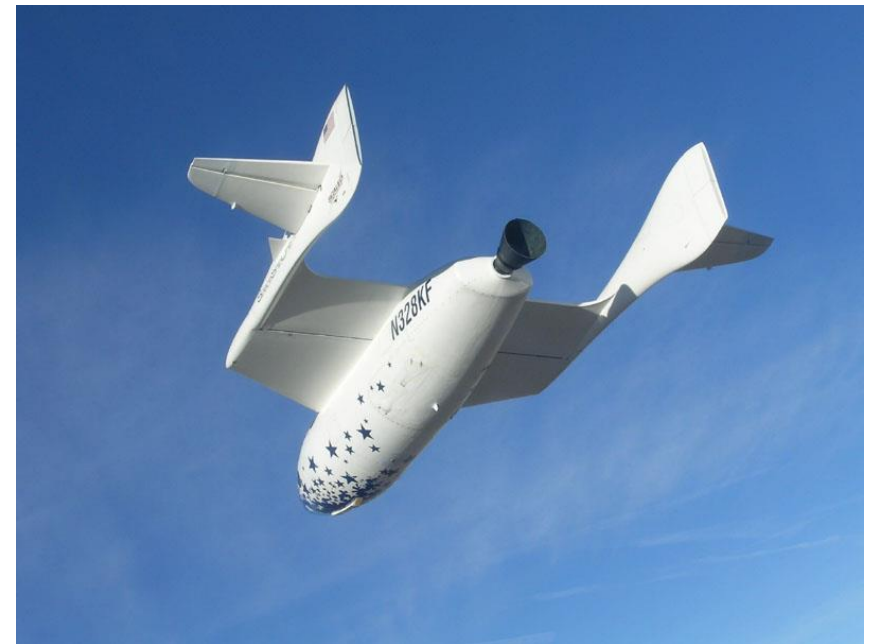




Bigger Picture

Is the product
performance driven or
cost driven?

This makes a huge
difference when
choosing materials.





Manufacturing Process

Although we usually choose materials first sometimes it is the shape and process which is the limiting factor.





Drink Container

- What are the requirements?







Drink Container

- Provide leak free environment for storing liquid.
- Comply with food standards & protect liquid from health hazards.
- For fizzy drinks, withstand pressure.
- Brand image & identity
- Easy to open
- Easy to store & transport
- Cheap for high volumes



Possible Materials

- Steel
- Aluminium
- Glass
- Plastic
- Paper



Summary

- System Analysis
- Manufacturing Process



Thanks..