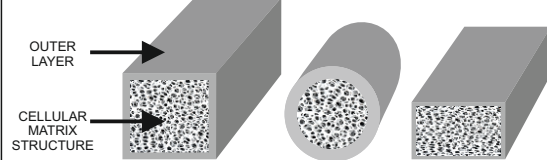


REVISION CARDS - METAL FOAMS

WHAT ARE METAL FOAMS ?

Metal foams are solid structures, usually composed of a dense outer layer, with the inner portion in the form of a matrix of pores. The foams possess the property of 'porosity', allowing air/gas and even liquids to pass through them and they are based on materials with a similar structure, such as natural bone, pumice stone and natural sponges. They have an internal cellular matrix structure. Aluminium, tantalum and titanium, are the metals that are commonly manufactured as foams.

SAMPLE SECTIONS OF METAL FOAMS



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https://technologystudent.com/joints_flash/metalfoam1.html

https://technologystudent.com/joints_flash/metalfoam2.html

HELPFUL LINKS:

ENHANCED PROPERTIES OF METAL FOAMS

Metal foams have enhanced physical properties compared to their solid form. For instance, aluminum metal foam has an even lower thermal conductivity, than the solid or tube versions. Metal foams can be recycled in the same way as other metals.

LEIGHTWEIGHT

POROUS

HIGH COMPRESSIVE STRENGTH

LOW THERMAL CONDUCTIVITY

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https://technologystudent.com/joints_flash/metalfoam1.html

https://technologystudent.com/joints_flash/metalfoam2.html

HELPFUL LINKS:

PRACTICAL APPLICATION - METAL FOAMS

A LOAD BEARING STRUCTURE
COMPRESSIVE STRENGTH



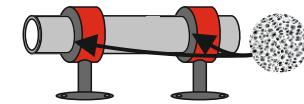
IMPACT ABSORPTION
CRUMPLE ZONES



LOW CONDUCTIVITY
HANDLES TO POTS



VIBRATION ABSORPTION
PIPE BRACKETS



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1. What are Metal Foams ? 5 marks

2. List two physical properties of metal foams AND describe two practical applications. 4 marks
