

NASA TECH BRIEF

Marshall Space Flight Center



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New Materials for Fireplace Logs

Two materials employed in the Saturn program can be used to manufacture superior, low-cost, artificial fireplace logs, as well as fireproof walls, incinerator bricks, planters, and roof shingles.

One material is a fibrous insulation that is much lighter in weight than fireclay, and is far less breakable. Also, because the material is slightly compressible, it can withstand more shock than fireclay.

Commonly available tools can be used to mix the material components. After the mixture is placed in a mold, it is oven-dried at 372 K. Because the process is not critical (e.g., drying at room temperature would be adequate), satisfactory mixtures could also be made at different temperatures.

The second material is the lightweight, refractory concrete used in the rocket test stands to deflect exhaust. A lightweight slag can serve as the aggregate, bonded with a high alumina calcium aluminatate refractory cement. Although satisfactory concrete logs have been made, further investigation is needed to determine the exact proportions of components.

Note:

Requests for further information may be directed to:

Technology Utilization Officer
Code A&TS-TU
Marshall Space Flight Center
Huntsville, Alabama 35812
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