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United States Patent [19]

Daws et al.

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[54] **CERAMIC FOAM PRECURSOR RESIN COMPOSITION**

[75] Inventors: **David Eric Daws**, Westminster; **Nicholas T. Castellucci**, Lomita; **Harry Wellington Carpenter**, Fallbrook; **Mary Wagner Colby**, Whittier, all of Calif.

[73] Assignee: **Northrop Grumman Corporation**, Los Angeles, Calif.

[*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

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Related U.S. Application Data

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[51] **Int. Cl.**[6] **B29C 65/00**

[52] **U.S. Cl.** **264/43**; 264/44; 264/49; 264/105; 501/39; 501/80; 501/82; 501/84; 501/87; 501/90; 521/61; 521/62; 521/63; 521/154; 521/180; 521/919; 252/500; 252/511

[58] **Field of Search** 264/43, 44, 49, 264/105; 501/80, 82, 84, 87, 90, 39; 521/61, 62, 63, 154, 180, 919; 252/500, 511

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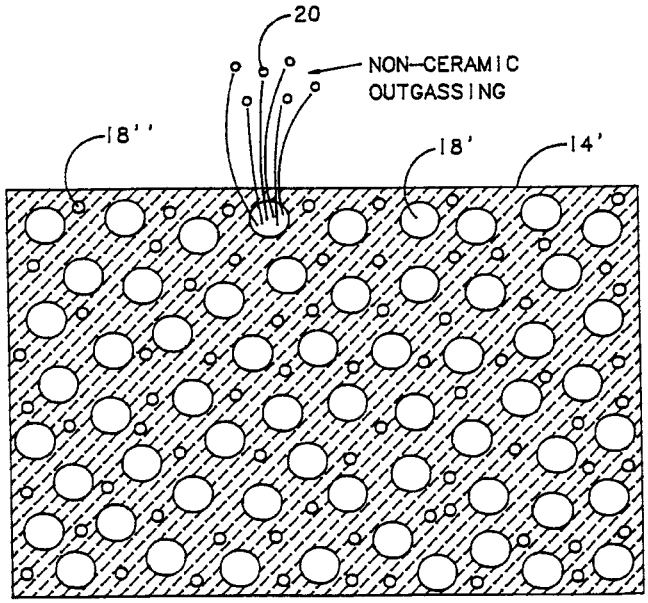
Primary Examiner—Stanley S. Silverman
Assistant Examiner—Michael P. Colaianni
Attorney, Agent, or Firm—Terry J. Anderson; Karl J. Hoch, Jr.

[57] **ABSTRACT**

The present invention is embodied in a ceramic foam made by mixing a liquid pre-ceramic resin and a liquid phenolic resin, allowing the resultant mixture to chemically foam, curing the mixture for a time and at a temperature sufficiently to convert the mixture to a polymeric foam, and then heating the resultant polymeric foam for a time and at a temperature sufficient to break-down polymers of the polymeric foam and convert the polymeric foam to a ceramic foam. The ceramic foam of the present invention contains residual decomposed components of the liquid phenolic resin and/or liquid pre-ceramic resin.

5 Claims, 2 Drawing Sheets