



US005169727A

United States Patent [19]
Boardman

[11] **Patent Number:** **5,169,727**
[45] **Date of Patent:** **Dec. 8, 1992**

[54] **SILICONE-BASED PRESSURE-SENSITIVE ADHESIVES HAVING HIGH SOLIDS CONTENT**

[75] **Inventor:** **Larry D. Boardman, Shoreview, Minn.**
[73] **Assignee:** **Minnesota Mining and Manufacturing Company, St. Paul, Minn.**
[21] **Appl. No.:** **505,772**
[22] **Filed:** **Apr. 5, 1990**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 228,282, Aug. 4, 1988, abandoned.
[51] **Int. Cl.⁵** **B32B 25/20; C08G 77/17; C08G 77/20**
[52] **U.S. Cl.** **428/447; 524/588; 524/862; 525/477; 525/478; 528/15; 528/31; 528/32**
[58] **Field of Search** **525/478, 477; 528/15, 528/31, 32; 524/862, 588; 428/447**

References Cited

U.S. PATENT DOCUMENTS

3,527,655 9/1970 Ballard 525/478
3,527,842 9/1970 Clark .

FOREIGN PATENT DOCUMENTS

0158459 10/1985 European Pat. Off. .
0175355 3/1986 European Pat. Off. .
0240162 10/1987 European Pat. Off. .
0269454 1/1988 European Pat. Off. .
2413439 7/1979 France .

Primary Examiner—Ralph H. Dean, Jr.
Attorney, Agent, or Firm—Gary L. Griswold; Walter N. Kirn; David L. Weinstein

[57] **ABSTRACT**

Pressure-sensitive adhesive composition comprising (a) a benzene soluble, resinous copolymer, (b) a diorganoalkenylsiloxy endblocked polydiorganosiloxane, (c) a diorganohydrogensiloxy endblocked polydiorganosiloxane, (d) an organosiloxane crosslinking agent containing more than two groups that will react with a silicon-bonded hydrogen of a diorganohydrogensiloxy endblocked polydiorganosiloxane by means of a hydrosilation reaction, said organosilicon compound being selected from organosiloxanes having 1 to 15 silicon atoms, and (e) a hydrosilation catalyst in an amount sufficient to effect curing of the composition. The major advantage of the present invention is that solvent need not be used to apply the composition. This non-use of solvent results in savings of material, time, and energy, and reduction in health and safety hazards.

16 Claims, No Drawings