



US006833404B2

(12) **United States Patent**
Quinn et al.

(10) **Patent No.: US 6,833,404 B2**
(45) **Date of Patent: Dec. 21, 2004**

(54) **HOT MELTS UTILIZING A HIGH GLASS
TRANSITION TEMPERATURE
SUBSTANTIALLY ALIPHATIC TACKIFYING
RESIN**

(75) Inventors: **Thomas H. Quinn**, St. Paul, MN (US);
Steven W. Albrecht, Forest Lake, MN
(US); **Beth M. Eichler-Johnson**, St.
Paul, MN (US); **David B. Malcolm**,
Maplewood, MN (US); **Lisa L. Ryan**,
Maple Grove, MN (US)

(73) Assignee: **H.B. Fuller Licensing & Financing
Inc.**, St. Paul, MN (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/300,544**

(22) Filed: **Apr. 27, 1999**

(65) **Prior Publication Data**

US 2003/0139516 A1 Jul. 24, 2003

Related U.S. Application Data

(60) Provisional application No. 60/091,231, filed on Jun. 30,
1998.

(51) **Int. Cl.⁷ C08K 5/01**

(52) **U.S. Cl. 524/487; 524/474; 524/297;
524/518**

(58) **Field of Search 524/297, 487,
524/518, 474**

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,102,834 A	7/1978	Morimoto et al.	260/4
4,330,655 A	5/1982	Bullard	526/283
4,629,766 A	12/1986	Malatesta et al.	525/222
5,149,741 A	9/1992	Alper et al.	525/95
5,171,793 A	12/1992	Johnson et al.	525/332.1
5,410,004 A	4/1995	Williams	526/237
5,552,489 A	9/1996	Merrill et al.	525/210
5,691,432 A	11/1997	Williams	526/283

FOREIGN PATENT DOCUMENTS

WO	WO 97/15635	5/1997
WO	WO 97/33921	* 9/1997

* cited by examiner

Primary Examiner—Peter D. Mulcahy

(57) **ABSTRACT**

This invention relates to an improved hot melt adhesive
comprising a tackifying resin wherein the resin is substan-
tially aliphatic and has a glass transition temperature of
greater than 65° C. and a thermoplastic polymer.

32 Claims, 1 Drawing Sheet