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(54) **POLYAMIDE AND COMPOSITION AND ARTICLE INCLUDING SAME**

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(58) **Field of Classification Search** 528/310, 528/323, 324, 326; 562/606; 554/1
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,784,495 A * 1/1974 Sprauer et al. 528/330
4,018,731 A 4/1977 Sims
4,045,389 A 8/1977 Drawert et al.
4,150,002 A 4/1979 Drawert et al.
4,196,108 A 4/1980 Hinze et al.
4,217,256 A 8/1980 Peerman et al.

4,218,351 A 8/1980 Rasmussen
4,232,145 A 11/1980 Schmid et al.
4,820,796 A 4/1989 Suzuki et al.
4,892,927 A * 1/1990 Meyer et al. 528/324
4,985,534 A 1/1991 Heinz et al.
5,191,060 A 3/1993 Akkapeddi et al.
5,278,249 A 1/1994 Marrion
5,288,799 A * 2/1994 Schmid et al. 525/66
5,321,120 A 6/1994 Sommerfeld
5,416,171 A 5/1995 Chung et al.
5,422,420 A 6/1995 Shridharani
5,489,667 A 2/1996 Knipf et al.
5,569,707 A 10/1996 Blum et al.
5,618,909 A 4/1997 Lofquist et al.
5,708,125 A 1/1998 Liedloff et al.
5,744,570 A 4/1998 Gebben
5,750,232 A 5/1998 Steenblock et al.
5,989,697 A 11/1999 Gebben

FOREIGN PATENT DOCUMENTS

JP 58103558 A2 6/1983

OTHER PUBLICATIONS

ASTM D-4499-95 (Reapproved 2000), "Standard Test Method for Heat Stability of Hot-Melt Adhesives", (1995).
"Prisorine and Pripol", UNIQEMA brochure, 2001.
ASTM D-4499-95 (Reapproved 2000), "Standard Test Method for Heat Stability of Hot-Melt Adhesives", (1995).

* cited by examiner

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(57) **ABSTRACT**

A polyamide that includes the reaction product of dimer acid (e.g. a dimer acid including at least 98% by weight dimer), caprolactam, hexamethylene diamine, sebacic acid, and optionally, chain terminating agent.

39 Claims, No Drawings