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Spinks

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(54) **LOW MELT FLOW COMPOSITION**

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(58) Field of Search 252/194; 428/34, 428/461, 516; 52/786.1, 172, 786.13

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,965,215 A	6/1976	Lopez et al.
4,045,401 A	8/1977	Stenmark et al.
4,109,431 A	8/1978	Mazzoni et al.
4,197,381 A	4/1980	Alia
4,198,254 A	4/1980	Laroche et al.

4,226,063 A	10/1980	Chenel	
4,431,691 A *	2/1984	Greenlee	428/34
4,622,249 A	11/1986	Bowser	
4,994,309 A	2/1991	Reichert et al.	
5,436,040 A *	7/1995	Lafond	428/34
5,503,884 A	4/1996	Meyer et al.	
5,509,984 A	4/1996	Meyer et al.	
5,510,416 A	4/1996	Meyer et al.	
6,212,756 B1 *	4/2001	Ferri	428/34

FOREIGN PATENT DOCUMENTS

EP	0475 213 A1	3/1992
WO	WO 96/37289	11/1996

OTHER PUBLICATIONS

Edgetech I.G. Ltd., Technical Report "Super Spacer" by Michael Glover & Gerhard Reichart, Sep. 1989, 32 pages.

* cited by examiner

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(57) **ABSTRACT**

A composition that includes a polyalphaolefin polymer and from about 20% by weight to about 70% by weight adsorbent, the composition being essentially free of a film forming agent.

19 Claims, 1 Drawing Sheet

