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[54] **REACTIVE SILICONE AND/OR FLUORINE CONTAINING HYDROPHILIC PREPOLYMERS AND POLYMERS THEREOF**

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Related U.S. Application Data

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[52] **U.S. Cl.** ..... **526/238.23**; 526/245; 526/262; 526/270; 526/243; 526/248; 526/251; 526/264; 526/279; 351/160 H

[58] **Field of Search** ..... 526/238.23, 245, 262, 526/270, 264, 279, 248, 243, 251; 351/160 H

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[57] **ABSTRACT**

Vinyl unsaturated copolymers are described which are obtained in a two-step process and which consist of monomeric units A, B, C, D and E, copolymerized in a first step, and in a second step reacted with a reactive vinyl monomer M_v, and in which A is a siloxane or fluorine containing vinyl monomer, 30–70% by weight; B is NN-dimethylacrylamide or N-vinylpyrrolidone, 30–70% by weight; C is an active hydrogen containing vinyl monomer, 0.5–25% by weight; D are other copolymerizable comonomers, 0–30% by weight, and E is a chain transfer agent, 0–10 mol percent. M_v is a vinyl unsaturated isocyanate.

These vinyl unsaturated polymers are useful, either by themselves or in combination with other copolymerizable vinyl monomers, as heat or UV-curable coatings or glass, plastic, wood, paper, textiles, metal or ceramics, said coatings possessing low surface energies and low refractive indices. They are especially useful as UV-curable hydrophilic coatings and water-swelling biocompatible polymers, especially fully molded highly oxygen-permeable contact lenses.

16 Claims, No Drawings