Title (en)

POLYOL COMPOSITIONS

Title (de)

POLYOLZUSAMMENSETZUNGEN

Title (fr)

COMPOSITIONS DE POLYOLS

Publication

EP 3870621 A1 20210901 (EN)

Application

EP 19802359 A 20191021

Priority

- US 201862749372 P 20181023
- US 2019057236 W 20191021

Abstract (en)

[origin: WO2020086470A1] Disclosed is a polyol composition comprising: (a) at least one monomeric polyol comprising three or more hydroxyl groups; (b) at least one higher polyol comprising three or more hydroxyl groups; and (c) at least one polyhydroxylated aromatic compound; wherein the at least one higher polyol comprises residues of either or both of the at least one monomeric polyol and the polyhydroxylated aromatic compound linked by one or more carbonate groups, oxygen ether groups, or a combination thereof, and wherein the polyol composition has a viscosity of less than 5000 cps at 150 degrees Fahrenheit. The at least one monomeric polyol and at least one higher polyol may have any structures affording polyol compositions and polyurethane compositions having the requisite physical characteristics in terms of polyol composition viscosity and polyurethane heat resistance, strength and flexural modulus. The polyol compositions are adapted to provide structurally robust, temperature resistant polyurethanes, but are of sufficiently low viscosity to permit the use of currently available pumping and mixing equipment. The resultant polyurethane compositions may exhibit heat distortion temperatures in excess of 110 degrees centigrade, high strength and essentially no loss of material properties in prolonged humidity tests at 70 degrees centigrade, lower peak exotherms, typically less than 250 degrees Fahrenheit during in-mold curing/polymerization. Articles prepared from polyurethanes incorporating such polyol compositions as reactants exhibit flexural strengths in excess of 10,000 psi and flexural moduli in excess of 400,000 psi, and exhibit outstanding green strength.

IPC 8 full level

C08G 18/10 (2006.01); **C08G 18/32** (2006.01); **C08G 18/44** (2006.01); **C08G 18/66** (2006.01); **C08G 18/76** (2006.01)

CPC (source: EP)

C08G 18/10 (2013.01); **C08G 18/3206** (2013.01); **C08G 18/44** (2013.01); **C08G 18/6644** (2013.01); **C08G 18/7664** (2013.01)

C-Set (source: EP)

C08G 18/10 + **C08G 18/6644**

Citation (search report)

See references of WO 2020086470A1

Designated contracting state (EPC)

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Designated extension state (EPC)

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