

Title (en)

MULTIFUNCTIONAL VISCOSITY INDEX IMPROVER DERIVED FROM POLYAMINE CONTAINING ONE PRIMARY AMINO GROUP AND AT LEAST ONE SECONDARY AMINO GROUP EXHIBITING IMPROVED LOW TEMPERATURE VISCOMETRIC PROPERTIES

Publication

EP 0400870 B1 19930908 (EN)

Application

EP 90305567 A 19900522

Priority

US 35872989 A 19890530

Abstract (en)

[origin: EP0400870A1] Composition of matter useful as a multifunctional viscosity index improver for lubricating oils comprising reaction product of: (i) (a) copolymer of ethylene and at least one other alpha-olefin monomer, said copolymer comprising intramolecularly heterogeneous copolymer chains containing at least one crystallizable segment of methylene units and at least one low crystallinity ethylene-alpha-olefin copolymer segment, wherein said at least one crystallizable segment comprises at least about 10 weight percent of said copolymer chain and contains at least about 57 weight percent of said copolymer chain and contains at least about 57 weight percent ethylene, wherein said low crystallinity segment contains not greater than about 53 weight percent ethylene, and wherein said copolymer has a molecular weight distribution characterized by at least one of a ratio of Mw/Mn of less than 2 and a ratio of Mz/Mw of less than 1.8 and wherein at least two portions of an individual intramolecularly heterogeneous chain, each portion comprising at least 5 weight percent of said chain, differ in composition from one another by at least 7 weight percent ethylene, said copolymer grafted with (b) ethylenically monounsaturated carboxylic acid material having 1 to 2 carboxylic acid groups or anhydride group to form grafted ethylene copolymer; and (ii) at least one polyamine containing one primary amino group and from 1 to about 6 secondary amino groups. h

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CPC (source: EP)

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Cited by

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