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(54) Title: COPOLYMERS, COMPOSITIONS THEREOF, AND METHODS FOR MAKING THEM

(57) Abstract: Provided are amorphous ethylene propylene copolymer, compositions thereof, and methods for making same, whereby the copolymer can include of from about 40 wt.% to about 60 wt.% ethylene derived units; and of from about 60 wt.% to about 40 wt.% propylene derived units. The copolymer can be characterized by having no discernable melting point as measured by DSC, an MFRR (MI (2.16 kg; 230°C)/ MI 21.6 kg; 230°C) of about 38 or more, a molecular weight distribution (MWD) of from about 1.5 to about 2.5, and a shear viscosity η^* at 0.01 rad/sec measured at 70°C that satisfies the relation $|\eta^*|_{(70^\circ\text{C}; 0.01 \text{ rad/sec})} > 1.2 \times 10^6 \times |\text{MFR}|^{0.77}$, wherein MFR is the melt flow rate and η^* is the complex viscosity at 0.01 rad/sec measured at 70°C.



WO 2011/094057 A1