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(54) Title: ETHYLENE-OCTENE COPOLYMERS WITH IMPROVED PROPERTY PROFILE

$$\begin{aligned} & \text{unsaturation}_{\text{type}} \text{ degree (\%)} \\ &= \frac{\text{unsaturation}_{\text{type}} \text{ units / 100,000 C atoms}}{\text{total unsaturation units / 100,000 C atoms}} * 100 \quad (I) \end{aligned}$$

(57) Abstract: Ethylene-1-octene copolymer characterized by a density in the range of 850 kg/m³ to 930 kg/m³ measured according to ISO 1183-187, a melt flow rate MFR₂ (190°C, 2.16 kg) in the range of from 0.3 g/10 min to 100 g/10 min measured according to ISO 1133, a MFR₁₀/MFR₂ of from 5.0 to 15.0, a Mw/Mn of from 2.0 to 5.0, 1.0 to below 20 vinyl unsaturation units /100,000 C atoms, more than 5.0 to 35 vinylidene unsaturation units /100,000 C atoms, more than 5.0 to 30 vinylene unsaturation units /100,000 C atoms, more than 15.0 to 60 trisubstituted unsaturation units / 100,000 C atoms, 26 to 150 total unsaturation units /100,000 C atoms, wherein the total unsaturation units /100,000 C atoms is the sum of vinyl unsaturation units /100,000 C atoms, vinylidene unsaturation units /100,000 C atoms, vinylene unsaturation units /100,000 C atoms and trisubstituted unsaturation units /100,000 C atoms, an unsaturation degree for unsaturation types e) to h) according to formula (I) wherein a vinyl unsaturation degree is in the range of from 5.0 to 15.0 %, a vinylene unsaturation degree is in the range of from 20.0 to 30.0 %, and wherein the sum of the vinyl unsaturation degree and vinylidene unsaturation degree is at least 30.0% and up to 50.0%.



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