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(54) Title: POLYETHYLENE COMPOSITIONS, METHODS OF MAKING THE SAME, AND ARTICLES PREPARED THEREFROM

(57) Abstract: The invention is related to compositions suitable for the fabrication of pipes, and other articles, with excellent performance properties. The invention provides a composition, comprising a blend, wherein said blend comprises a high molecular weight ethylene-based interpolymers and a low molecular weight ethylene-based interpolymers, and the high molecular weight ethylene-based interpolymers is a heterogeneously branched linear or a homogeneously branched linear ethylene-based interpolymers, and has a density from 0.922 g/cc to 0.929 g/cc, and a high load melt index (I21) from 0.2 g/10 min to 1.0 g/10 min, and the low molecular weight ethylene-based interpolymers is heterogeneously branched linear or a homogeneously branched linear ethylene-based interpolymers, and has a density from 0.940 g/cc to 0.955 g/cc, and a melt index (I2) from 6 g/10 min to 50 g/10 min. The blend has a single peak in an ATREF profile eluting above 30°C, and has a coefficient of viscosity average molecular weight (CM<sub>v</sub>) less than -0.0032 in the log(calculated M<sub>v</sub>) versus elution temperature, said CM<sub>v</sub> calculated in the range of elution temperatures from 70°C to 90°C. The M<sub>v</sub> is the viscosity average molecular weight.

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# INTERNATIONAL SEARCH REPORT

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Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2004/158011 A1 (JAIN PRADEEP [US] ET AL) 12 August 2004 (2004-08-12) paragraph [0002]; figure 4 -----	1-71
<input type="checkbox"/> Further documents are listed in the continuation of Box C.		
<input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents :		
*A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *&* document member of the same patent family	
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  <p style="text-align: center; font-weight: bold;">Van Golde, Lambertus</p>	

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2004158011	A1	NONE	12-08-2004