

Title (en)

FLAME RETARDANT COMBINATIONS FOR POLYMER COMPOSITIONS AND USE THEREOF

Title (de)

FLAMMSCHUTZMITTELKOMBINATIONEN FÜR POLYMERZUSAMMENSETZUNGEN UND DEREN VERWENDUNG

Title (fr)

COMBINAISONS D'AGENTS IGNIFUGES POUR COMPOSITIONS POLYMÈRES ET LEUR UTILISATION

Publication

EP 3679093 A1 20200715 (DE)

Application

EP 18762270 A 20180829

Priority

- DE 102017215777 A 20170907
- EP 2018073234 W 20180829

Abstract (en)

[origin: WO2019048311A1] The invention relates to flame retardant combinations containing - phosphinic acid salt of the formula (I) as component A, wherein R1 and R2 represent ethyl, M represents Al, Fe, TiOp or Zn, m is 2 to < 4, and p = (4 - m) / 2, a compound selected from the group consisting of Al-, Fe-, TiOp- or Zn salts of ethylbutyl phosphinic acid, dibutylphosphinic acid, ethylhexylphosphinic acid, butylhexylphosphinic acid and/or dihexylphosphinic acid as component B, phosphonic acid salt of formula (II) as component C, wherein R3 represents ethyl, Met represents Al, Fe, TiOq or Zn, n is 2 to < 4, and q = (4 - n) / 2, wherein the melamine polyphosphate has an average degree of condensation from 2 - 200 as component D, wherein the x-ray diffractogram of the flame retardant combinations contain the following reflections: in the angle range 2θ from 9.099° to 9.442°, from 14.765° to 15.076°, from 18.619° to 18.984° and from 26.268° to 26.679° and/or in the angle range 2θ from 5.112° to 5.312°, from 6.097° to 6.297°, from 10.082° to 10.282°, from 10.350° to 10.550°, and from 12.308° to 12.508°, from 14.765° to 15.076° and/or in the angle range 2θ from 9.117° to 9.317°, from 14.765° to 15.076° and from 18.537° to 18.737° and/or in the angle range 2θ from 8.300° to 8.500° and from 14.765° to 15.076°. The polymer compositions can be used to produce fibres, films and moulded bodies, in particular for electrical and electronic applications.

IPC 8 full level

C08K 3/32 (2006.01); **C08K 5/3492** (2006.01); **C08K 5/5313** (2006.01); **C08K 5/5317** (2006.01); **C08K 7/14** (2006.01); **C08L 67/02** (2006.01); **C08L 77/02** (2006.01); **C08L 77/06** (2006.01)

CPC (source: CN EP)

C08K 5/3492 (2013.01 - CN); **C08K 5/34928** (2013.01 - EP); **C08K 5/5313** (2013.01 - CN EP); **C08K 5/5317** (2013.01 - CN EP); **C08K 7/14** (2013.01 - CN EP); **C08K 13/04** (2013.01 - CN); **C08L 67/02** (2013.01 - EP); **C08L 77/02** (2013.01 - EP); **C08L 77/06** (2013.01 - EP); **C08K 13/02** (2013.01 - EP); **C08L 2201/02** (2013.01 - CN)

Citation (search report)

See references of WO 2019048311A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

DE 102017215777 A1 20190307; CN 109467748 A 20190315; CN 112409638 A 20210226; CN 112409638 B 20230328; EP 3679093 A1 20200715; TW 201920633 A 20190601; WO 2019048311 A1 20190314

DOCDB simple family (application)

DE 102017215777 A 20170907; CN 201810145588 A 20180212; CN 202011073012 A 20180212; EP 18762270 A 20180829; EP 2018073234 W 20180829; TW 107129741 A 20180827