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- (81) 指定国 (除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK,

(54) Title: ELECTROMAGNETIC SHIELDING FILLER, ELECTROMAGNETIC SHIELDING COATING COMPRISING SAME, PREPARATION METHOD AND APPLICATION THEREOF

(54) 发明名称: 电磁屏蔽填料、包含其的电磁屏蔽涂料及其制备方法和应用

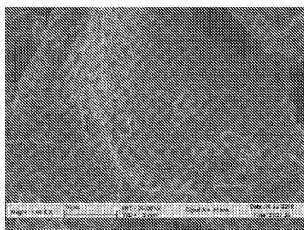


图 1

(57) Abstract: The invention relates to an electromagnetic shielding filler, an electromagnetic shielding coating comprising the same, a preparation method and an application thereof. The electromagnetic shielding filler adopts melamine foam as a carrier and surfaces thereof are covered with FeO_x/graphene. The electromagnetic shielding coating is formed by mixing a component A and a component B in a molar ratio of (-OH)_A:(-NCO)_B=1:1, in which component A comprises fluorocarbon resin, elastic polyester resin, an electromagnetic filler, an auxiliary agent and a mixing solvent, and component B is isocyanate. The electromagnetic shielding filler of the invention has a sponge-like macroporous structure, the pore wall surfaces of which are covered with ferrite and graphene, and is capable of electrical attenuation and magnetic attenuation, thereby achieving excellent electromagnetic shielding performance. The obtained electromagnetic shielding coating is electrically conductive and magnetically inductive and has a broad electromagnetic shielding response frequency band. The obtained electromagnetic shielding coating has a low density in line with the trend for reduced product footprints, is convenient to use, and can be applied by brush coating, spray coating, or roller coating.

(57) 摘要: 本发明涉及一种屏蔽填料、包含其的屏蔽涂料及其制备方法和应用。所述屏蔽填料以密胺海绵为载体, 其表面覆盖 FeO_x/石墨烯。所述屏蔽涂料由甲、乙组分按照摩尔比 (-OH)_甲: (-NCO)_乙=1:1 混合而成; 其中所述甲组分包括: 氟碳树脂、弹性聚酯树脂、电磁屏蔽填料、助剂及混合溶剂; 所述乙组分为异氰酸酯。本发明所述屏蔽填料具有海绵的大孔结构, 铁氧体和石墨烯覆盖在孔壁表面; 具有电损耗和磁损耗而表现出优越的电磁屏蔽性能。所得电磁屏蔽涂层兼具导电和导磁特性, 电磁屏蔽响应频段宽; 所得电磁屏蔽涂层密度较小, 符合轻量化发展方向; 该涂料施工方便, 可刷涂、喷涂、辊涂。

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WO 2019/109726 A1

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