

Title (en)  
FLEXIBLE FILM BASED ON FLUORINATED POLYMER

Title (de)  
AUF FLUORINIERTEM POLYMER BASIERENDE BIEGSAME FOLIE

Title (fr)  
FILM FLEXIBLE A BASE DE POLYMERES FLUORE

Publication  
**EP 1979162 A2 20081015 (FR)**

Application  
**EP 07731521 A 20070125**

Priority  
• FR 2007050693 W 20070125  
• FR 0600695 A 20060125

Abstract (en)  
[origin: FR2896445A1] Multi-layer structure comprises: a film (F1) of polyvinylidene fluoride (PVDF) joined with a layer e.g. of polyethylene terephthalate (PET); a film (F2) of PVDF with PET coupled with a film having PVDF; optionally a layer (I) of PVDF, polymethyl methacrylate (PMMA) and an UV absorber; a layer (II) of PVDF, PMMA, a mineral filler and polyalkylene glycol; optionally a layer (III) of PVDF, PMMA, a mineral filler and a polyalkylene glycol; and an adhesive layer is laid out between the PET/PEN layer and the PVDF (F1) and/or (F2) films, where the adhesive layer is optional if (II) is present. Multi-layer structure comprises: a film (F1) containing polyvinylidene fluoride (PVDF) joined with a layer of polyethylene terephthalate (PET) or polyethylene naphthalate (PEN); a film (F2) containing PVDF with PET or PEN coupled with a film containing PVDF; optionally a layer of composition (I) having PVDF at 5-40 parts, polymethyl methacrylate (PMMA) at 60-95 and a UV absorber at 0-5 parts; a layer of composition (II) having PVDF at 50-100 parts, PMMA at 0-50 parts, mineral filler at 0-30 parts and polyalkylene glycol at 0-3 parts; optionally a layer of composition (III) having PVDF at 80-100 parts, PMMA at 0-20 parts, a mineral filler at 0-30 parts and a polyalkylene glycol at 0-3 parts; and an adhesive layer is laid out between the sheet of PET or PEN and the F1 and/or F2 films, where the adhesive layer is optional if (II) is present. Independent claims are included for: (1) a protected photovoltaic module surfaces, a technical textile made out of PVC, a glass fabric or glass mat, aramid fabric, a Kevlar (RTM: Para-aramid fibers) fabric and protected metal surfaces protected by the multi-layer structure; and (2) a process of preparing the multi-layer structure comprising co-extruding the various PVDF layers, an adjacent polyolefin layer (E) to (I) or (III), and optionally another polyolefin layer extruded in PVDF layers or (E) on the side opposed to the layer extruded in E, and cooling co-extrudate, recovering and separating polyolefin layer and the multi-layer structure.

IPC 8 full level  
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CPC (source: EP KR US)  
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C-Set (source: EP US)  
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3. **C08L 33/12** + **C08L 2666/02**

Citation (third parties)  
Third party :  
• JP H10190023 A 19980721 - KUREHA CHEMICAL IND CO LTD  
• JP 2004352966 A 20041216 - DENGIKEN KK, et al

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CN101431108A; US11905093B2

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