Claims

1. Profile for window, door, facade or cladding elements, comprising
a profile body (2) made from thermoplastic material and extending in a longitudinal direction (z) with an essentially constant cross-section (x-y) along the longitudinal direction (z) and having at least one surface (2a), and
a metal containing layer (4) deposited on at least part of the at least one surface (2a),
wherein the thermoplastic material is polyamide or polypropylene,
wherein the metal containing layer is made of aluminium nitride or chromium or a blend of aluminium nitride and chromium or a blend of aluminium with aluminium nitride and/or chromium,
wherein the metal containing layer (4) is deposited directly on the profile body (2) using a PVD technology, and
wherein the metal containing layer has a thickness in the range from 110 nm to 170 nm.

2. Profile according to claim 1, wherein the metal containing layer is made of aluminium nitride.

3. Profile according to claim 1, wherein the metal containing layer is made of chromium.

4. Profile according to one of claims 1 to 3,
wherein the metal containing layer (4) is deposited directly on the profile body (2) using magnetron sputtering.

5. Profile according to one of claims 1 to 4,
wherein the thermoplastic material is polyamide with glass fibre reinforcement.

6. Profile according to one of claims 1 to 5,
wherein the thermoplastic material is polyamide 66 with 100 to 60 % glass fibre reinforcement.

7. Profile according to one of claims 1 to 6, wherein the profile body (2) is made fully or partly from foamed thermoplastic material.

8. Profile according to claim 7, wherein the profile body comprises a foamed thermoplastic material with a low density of foam cells of less than 10 volume% or no foam cells in a layer of a thickness of 0.1 mm at the at least one outer surface (2a).

9. Profile according to one of claims 1 to 8, wherein a powder coating layer is formed on the metal containing layer (4).

10. Method for manufacturing a profile for window, door, facade or cladding elements comprising a profile body (2) made from thermoplastic material and extending in a longitudinal direction (z) with an essentially constant cross-section (z-y) along the longitudinal direction (z) and having at least one outer surface (2a), and a metal containing layer (4) deposited on at least part of the at least one outer surface (2a), comprising the steps of:

- extruding the profile body from polyamide or polypropylene,

and

- depositing a metal containing layer made of aluminium nitride or chromium or a blend of aluminium nitride and chromium or a blend of aluminium with aluminium nitride and/or chromium by PVD on the at least one surface (2a) of the profile body (2) with a thickness in the range from 110 nm to 170 nm.

11. Method according to claim 10, wherein the thermoplastic material is polyamide 66 with 20 to 30 % glass fibre reinforcement.

12. Metal plastic composite profile for window, door, facade or cladding elements, comprising

at least one metal profile (10, 20) and at least one profile according to one of claims 1 to 9 connected thereto.

13. Window, door, facade or cladding element comprising

a glass pane (30a, 30b, 30c, 30d), a sealing element (40, 40a, 40b, 40c), and at least one profile according to one of claims 1 to 9, wherein the glass pane is connected to the at least one outer surface (2a) of the profile via the sealing element (40, 40a, 40b, 40c) and an adhesive between the sealing element and the metal containing layer (4).

14. Window, door, facade or cladding element comprising a profile according to one of claims 1 to 9, wherein the metal containing layer (4) forms electrical circuitry for electrical purposes such as lighting, communication, grounding, and scanning.