Claims:

1. A composite panel comprising:
a first section having an exterior face;
a second section having an exterior face, respective exterior faces forming the frontmost and rearmost faces of the composite panel, the first section and the second section being disposed on a longitudinal plane of the composite panel; and
a sandwich section arranged at a boundary of the first section and the second section, the sandwich section separating the first section from the second section, wherein the sandwich section comprises a plurality of interfacing regions each configured to couple the first section and the second section, each of the interfacing regions comprising metallic plates, such as steel plates or stainless steel plates disposed around a periphery of the composite panel,
wherein the metallic plates are adapted to receive fasteners for securing the first section to the second section of the composite panel, without passing through either exterior face; each of the interfacing regions further comprising an elastomeric medium positioned between the metallic plates and fasteners.

2. The composite panel of claim 1, wherein the sandwich section comprises four interfacing regions.

3. The composite panel of claim 2, wherein the four interfacing regions may be arranged such as to comprise an outer pair of interfacing regions formed around the periphery of the composite panel, and an inner pair of interfacing regions formed adjacent to the periphery of the composite panel.

4. The composite panel of any one of the preceding claims, wherein the first section and the second section each comprises at least one layer of silicate-based material and at least one layer of a gypsum based material wherein the silicate-based material includes at least one of a fibre silicate board, a calcium silicate board and a magnesium silicate board.

5. The composite panel of claim 4, wherein the silicate-based material is a high-density silicate board.

6. The composite panel of claim 4 or claim 5, wherein the silicate-based material has a thickness of six (6) millimetres.

7. The composite panel of any one of the preceding claims, wherein the first section comprises two reinforcement sections disposed at opposing ends of the composite panels.

8. The composite panel of claim 7, wherein the reinforcement section(s) are filled with gypsum based material, inclusive of one or more gypsum boards.

9. The composite panel of claim 2, wherein the elastomeric material is in the form of gaskets, each gasket having a tensile strength of around 75 kilograms per square centimetres.

10. The composite panel of claim 9, wherein each gasket further comprises a specific gravity of 1.34 ±0.05.

11. The composite panel of claim 9 or claim 10, wherein each gasket further comprises a Shore A hardness rating of 55 ±5.

12. An acoustical door system comprises at least one composite panel forming at least one acoustical door panel, the composite panel comprising a first section having an exterior face, and a second section having an exterior face, respective exterior faces forming the frontmost and rearmost faces of the composite panel, the first section and the second section being disposed on a longitudinal plane of the composite panel; a sandwich section arranged at a boundary of the first section and the second section, the sandwich section separating the first section from the second section, and comprising a plurality of interfacing regions configured to couple the first section and the second section, each interfacing region comprising metallic plates, such as steel plates or stainless steel plates disposed around a periphery of the composite panel, wherein the metallic plates are adapted to receive fasteners for securing the first section to the second section of the composite panel without passing through either exterior face; either exterior portion, each of the interfacing regions further comprising an elastomeric medium positioned between the metallic plates and fasteners.

13. The acoustical door system of claim 12 comprising two composite panels forming a corresponding two-door leaf configuration.

14. The acoustical door system of claim 13, comprising a door frame, wherein the two composite panels is coupled to the door frame assembly.

15. The acoustical door system of claim 14, wherein the door frame assembly comprises a polymer filled sheet.

16. The acoustical door system of claim 15, wherein the polymer filled sheet is a bitumen-based polymer.

17. A method of manufacturing a composite panel comprising the steps of

a. providing a first section having an exterior face and a second section having an exterior face, such that respective exterior fasces from the frontmost and rearmost faces of the composite panel;

b. forming the first section and the second section on a longitudinal plane of the composite panel;

c. providing a sandwich section, at a boundary of the first section and the second section, the sandwich section separating the first section from the second section, and comprising a plurality of interfacing regions each interfacing region comprising metallic plates, adapted to receive fasteners and disposed around a periphery of the composite panel, each of the interfacing regions further comprising an elastomeric medium positioned between the metallic plates and the fasteners; and

d. coupling via the sandwich section the first section and the second section with the fasteners without passing the fasteners through either

exterior face.

18. The method of claim 17, wherein forming the first section comprises the steps of:

a. attaching, using a first sealant, a first layer of plasterboard to a perimeter of the composite panel;

b. attaching, using a second sealant, a second layer of plasterboard to the first layer of plasterboard; and

c. attaching, using the second sealant, a third layer of plasterboard to the second layer of board.

19. The method of claim 18, wherein the first sealant includes a contact sealant or a fire rated intumescent sealant.

20. The method of claim 18 or claim 19, wherein the second sealant includes a fire rated intumescent polyurethane sealant.