A seamless plastic shielding dasher board system includes at least two lower dasher boards each with a top sill having a plastic shield trough or channel therein for receipt and support of the plastic shield. A clear plastic shield panel fits into the trough of each board. A clear, plastic, H-shaped shield panel support with open opposing support channels loosely receives the side edges of adjacent shield panels to permit linear and non-linear alignment of adjacent dasher boards and plastic shield panels. The shield supports have inwardly opposing lip projections at their open edges of the support channels to support the side edges of the shielding panels in vertical alignment.
SEAMLESS PLASTIC SHIELDING DASHER BOARD SYSTEM

BACKGROUND OF THE INVENTION

[0001] The present invention relates to dasher boards which are used around the ice playing area of an ice hockey rink or smaller sporting event where fans are protected and play is isolated for such athletic events, and more particularly, to a seamless plastic shielding dasher board system.

[0002] There are basically two systems of dasher board assemblies that have been used with ice hockey rinks. The supported plastic shield dasher board system is of the type that its shield supports extend into the lower dasher boards. The other system is referred to as a seamless glass dasher board system wherein the glass is supported in a U-shaped channel or trough in the sill located on the top of the lower dasher boards with possibly a u-shaped or hairpin-like clip secured at the top junction of adjacent glass shields or panels.

[0003] More specifically, a supported plastic dasher board system 12 is illustrated in FIGS. 1-4 and further disclosed in U.S. Pat. No. 6,622,434. The lower dasher board 14 has various vertical and horizontal members or stringers 16 with outward side panels 18. The top sill 20 has a slot 22 vertically therethrough, through which the reinforced shielding panel support 24 passes into the lower dasher board 14 interior. The support 24 has an upper portion 26, that is generally H-shaped with a support fin, and has opposing tight channels 28 for firm or tight receipt of, or grip on, the plastic shielding panels 30. The plastic shielding panels are typically made of polycarbonate, LEXAN® or acrylic.

[0004] Most of the plastic shielding panel supports are also made of plastic with a reinforcing heavy duty shaft or fin 32 running its length to reinforce the panel supports 24 as they are subjected to tremendous forces caused from hockey players literally flying or being pushed into the shield panels 30. The panel supports 24 also have a lower portion 34 which fits within a bracket 36 in the lower dasher board 14. These known shielding panel supports 24 with fins 32 are most difficult to see therethrough (see FIG. 3). Some of these supports are actually made of aluminum, as shown by panel support 40 in FIG. 4, which fans F cannot see through at all.

[0005] The other type of dasher board systems is the seamless glass shielding dasher board 60 shown in FIGS. 5 and 6. This dasher board system 60 includes a lower dasher board 61 with suitable vertical and horizontal members or stringers 62 therein suitably enclosed by side panels 64. The lower dasher boards 61 have a top sill 66. Within the top sill 66 is located an aluminum channel or trough 68 for receiving a glazing gasket 70 into which is placed and supported a glass shielding panel 72. Hairpin or u-shaped clips 74 are often used to secure adjacent top edges of the seamless glass shields or panels 72 as shown in FIG. 6. These systems are further disclosed in U.S. Pat. Nos. 6,004,217; 5,953,882 and 5,706,628.

[0006] There is a need for a seamless plastic shielding dasher board system that is more economical than other dasher board systems that use expensive shielding panel supports or glass panels. Such a system should have distinctive see-through shielding panel supports for good sports Fan F viewing of the action on the ice, which is clearly not the case as shown in FIG. 3 with the current aluminum shield panel supports 40 or plastic reinforced shielding panel supports 24.

SUMMARY OF THE INVENTION

[0007] A seamless plastic shielding dasher board system includes at least two lower dasher boards each with a top sill having a plastic shield trough or channel therein for receipt and support of the plastic shield. A clear plastic shield or panel fits into the trough of each board. A clear plastic, flat, H-shaped shield panel support with open opposing support side channels loosely receives the side edges of adjacent shield panels to permit linear and non-linear alignment of adjacent dasher boards and plastic shield panels. The shield supports have inwardly opposing lip projections at their open edges of the support channels to support the side edges of the shielding panels in vertical alignment.

[0008] A principal object and advantage of the present invention is that the faces of the shielding panel support is flat and of a clear plastic with all the see-through advantages of the seamless glass dasher board systems.

[0009] Another object and advantage of the present invention is that the seamless plastic shielding dasher board system may be economically built in that the invention is less expensive than the past supported plastic dasher board or seamless glass dasher board systems.

[0010] Another object and advantage of the present invention is that the shielding panel support eliminates a lower portion which extends into the dasher board as with other known supported plastic dasher board systems.

[0011] Another object and advantage of the present invention is that the clear plastic shielding panel support easily slides upwardly off the edges of the shielding panels for easy removal and replacement of any shielding panels within the dasher board system.

[0012] Another object and advantage of the present invention is that the seamless plastic shielding dasher board system is lightweight and will take less time, manpower and equipment to replace, disassemble and assemble by simply pulling the supports upwardly and out, then lifting the shields off the U channels.

[0013] Another object and advantage of the present invention is that of uniform flexibility all across the seamless plastic shielding dasher board system because there are no supports that extend into the lower dasher boards which offer points of stiffness or rigidity in past supported plastic dasher board systems.

[0014] Another object and advantage of the present invention is that the clear plastic shield panel supports are less expensive than past known reinforced shielding plastic supports or aluminum supports which will add a savings of approximately fifty percent (50%) overall.

[0015] Another object and advantage is that the clear plastic H-shaped shield supports are usable on the straight sides as well as at the corners of a hockey rink dasher board system making all shield support parts uniform and interchangeable.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] FIG. 1 is a cross-sectional view of a supported plastic shield dasher board system;

[0017] FIG. 2 is a top plan view of the upper portion of the shielding panel support with plastic shielding panels within the tight channels of the support which also has a reinforced shaft or fin;

[0018] FIG. 3 is a perspective environmental view of the supported plastic dasher boards with Fans therebehind showing the visual obstruction caused by the shielding panel supports;

[0019] FIG. 4 is a top plan view of an aluminum panel support with plastic shielding panels within the tight channels of the support;
[0020] FIG. 5 is a schematic end view of a seamless glass shielding-dasher board system;
[0021] FIG. 6 is a top elevational view of the u-shaped or hairpin clip which connects adjacent shielding glass panel top edges;
[0022] FIG. 7 is a schematic end view of the seamless plastic shielding dasher board system of the present invention;
[0023] FIG. 8 is a top plan view of the seamless plastic shielding dasher board system of the present invention as used in the beginning of a corner section of a hockey rink; and
[0024] FIG. 9 is another top plan view of the present invention with an additional supporting U-shaped bracket.

DETAILED SPECIFICATION

[0025] Referring to FIGS. 7 through 11, the seamless plastic shielding dasher board system 80 of the present invention may include a number of boards 102, each with an enclosure lower dasher board 83 covered with side panels 86. Boards 82 are typically secured to a concrete floor.

[0026] In the top of each of the lower dasher boards 82 is a top sill 88 wherein is located a molded edge channel 90 which optionally may be lined with a glazing gasket 92. The plastic shielding panel support 94 is of a polycarbonate, acrylic or LEXAN® material that is generally H-shaped and flared on its sides A and B from its base panel view. The panel support 94 has a flat spine 95 that runs centrally, vertically through the support 94. Adjacent the spine 95 on both sides are open channels 96 which directionally oppose each other and provide adequate spacing for pivoting of the shields 102A at hockey rink corners shown in FIGS. 8 and 11. The open channels 96 have outer edges 97 whereon are located opposing lips or projections 100 which are directed inwardly at the open edges 97 toward each other.

[0027] Lightweight plastic shielding panels 102A are simply placed into the glazing gasket 92 of the trough or channel 90 and the shielding panel supports 94 are lowered down along the horizontal edges 103 of adjacent shielding panels 102. The open channels 96 in the open channels 96 so that they remain vertically upright but are allowed to pivot or slightly rotate within the spacing of the open channels 96. The panel supports 98 are flat A and B on each side for good viewing thereon as illustrated in FIG. 11.

[0028] When necessary, a relatively flat U-shaped bracket 104 of clear plastic may be secured at the top edges of the adjacent shield panels 102 and held in place with the bracket tabs 106 while the shield panel support 102 while the bracket is fixed into position with a screw or lag bolt 108 being set into the top portion of the panel support spine 95 as shown at FIG. 9.

[0030] This disclosure and the appended figures are for illustrative purposes only while the following claims are to be used to determine the actual breadth and scope of the present invention.

What is claimed is:
1. A seamless plastic shielding dasher board system comprising:
   a) at least two lower dasher boards each with a top sill having a plastic shield trough therein for receipt and support of the shield;
   b) a clear plastic shield panel in each trough of each board with vertical side edges.
   c) a clear plastic, flat, H-shaped shield panel support with open opposing support channels for loosely receiving side edges of adjacent shield panels to permit linear and nonlinear alignment of adjacent; and
   d) inwardly opposing lip projections at open edges of the support channels to support the side edges of the shielding panels in vertical alignment.

2. The dasher board system of claim 1, wherein the clear plastic H-shaped shield panel support extends from the sill to the top of the plastic shield panel.

3. The dasher board system of claim 1, wherein the shield panel support is unattached to the lower dasher board and shield panel for sliding on or off of the shield panels from above.

4. The dasher board system of claim 1, wherein the shield panel support has a clear plastic vertical support spine between opposing channels.

5. The dasher board system of claim 4, further comprising a bracket u-shaped in cross section securable to a top portion of the spine to support the shield panels to the shield panel support.

6. The dasher board system of claim 5, wherein the bracket is securable with a bolt or a screw.

7. A seamless plastic shielding dasher board system comprising:
   a) at least two lower dasher boards each with a top sill having a plastic shield trough therein for receipt and support of the shield;
   b) a clear plastic shield panel in each trough of each board with vertical side edges.
   c) a clear plastic, flat, H-shaped shield panel support extending from the sill to the top of the plastic shield panel unattached to the lower dasher boards with open opposing support channels for loosely receiving side edges of adjacent shield panels to permit linear and nonlinear alignment of adjacent; and
   d) inwardly opposing lip projections at open edges of the support channels to support the side edges of the shielding panels in vertical alignment.

8. The dasher board system of claim 7, wherein the shield panel support has a clear plastic vertical support spine between opposing channels.

9. The dasher board system of claim 8, further comprising a bracket u-shaped in cross section securable to a top portion of the spine to support the shield panels to the shield panel support.

10. The dasher board system of claim 9, wherein the bracket is securable with a bolt or a screw.

11. A seamless plastic shielding dasher board system comprising:
   a) at least two lower dasher boards each with a top sill having a plastic shield trough therein for receipt and support of the shield;
   b) a clear plastic shield panel in each trough of each board with vertical side edges.
   c) a clear plastic, flat, H-shaped shield panel support extending from the sill to the top of the plastic shield
panel unattached to the lower dasher boards with open opposing support channels for loosely receiving side edges of adjacent shield panels to permit linear and nonlinear alignment of adjacent panels and a clear plastic vertical support spine between the opposing channels; and
d) inwardly opposing lip projections at open edges of the support channels to support the side edges of the shielding panels in vertical alignment.

12. The dasher board system of claim 11, further comprising a bracket u-shaped in cross section securable to a top portion of the spine to support the shield panels to the shield panel support.

13. The dasher board system of claim 12, wherein the bracket is securable with a bolt or a screw.

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