major surface opposing the first major surface. The second major surface of the flexible glass sheet is bonded with respect to a first major surface of a carrier substrate and an outer edge portion of the flexible glass sheet protrudes beyond an outer periphery of the first major surface of the carrier substrate. A thickness between the first major surface and the second major surface of the flexible glass sheet is equal to or less than 300 μm. The method then includes the step (II) of separating the outer edge portion from a bonded portion of the flexible glass sheet along a separation path while the bonded portion of the flexible glass sheet remains bonded with respect to the first major surface of the carrier substrate. The step of separating the outer edge portion provides the flexible glass sheet with a new outer edge extending along the separation path. A lateral distance between the new outer edge of the flexible glass sheet and the outer periphery of the first major surface of the carrier substrate is greater than 0 μm and less than or equal to 750 μm. Separating the outer edge portion from the bonded portion of the flexible glass sheet does not comprise cutting the carrier substrate.

[0008] In one example of the aspect, step (I) further includes bonding the second major surface of the flexible glass sheet with respect to the first major surface of the carrier substrate. The second major surface of the flexible glass sheet that is bonded during step (I) has a larger surface area than a surface area of the first major surface of the carrier substrate. In one particular example, bonding during step (I) laterally circumscribes the first major surface of the carrier substrate with the outer edge portion of the flexible glass sheet.

[0009] In another example of the aspect, step (II) includes providing at least one defect in at least one of the first major surface and the second major surface of the flexible glass sheet on the separation path.

[0010] In one particular example of the aspect, the at least one defect includes a plurality of defects in the first major surface of the flexible glass sheet, and the plurality of defects are spaced apart from one another along the separation path. In one example, each defect of the plurality of defects extends from the first major surface to a depth below the first major surface of less than or equal to 20% of the thickness of the flexible glass sheet. In another example, the space between adjacent defects of the plurality of defects is within a range of from about 15 μm to about 25 μm. In still another example, step (II) further includes traversing a beam of electromagnetic radiation over the first major surface along the separation path to: (a) transform at least one of the plurality of defects into a full body crack intersecting the first major surface and the second major surface of the flexible glass sheet; and (b) propagate the full body crack through remaining defects of the plurality of defects along the separation path, thereby producing a full body separation of the outer edge portion

What is claimed is:

1. A method of processing a flexible glass sheet comprising:

(I) providing a flexible glass sheet including a first major surface and a second major surface opposing the first major surface, wherein the second major surface of the flexible glass sheet is bonded with respect to a first major surface of a carrier substrate and an outer edge portion of the flexible glass sheet protrudes beyond an outer periphery of the first major surface of the carrier substrate, and a thickness between the first major surface and the second major surface of the flexible glass sheet is equal to or less than 300 μm; and then

(II) separating the outer edge portion from a bonded portion of the flexible glass sheet along a separation path while the bonded portion of the flexible glass sheet remains bonded with respect to the first major surface of the carrier substrate, wherein the step of separating the outer edge portion provides the flexible glass sheet with a new outer edge extending along the separation path, wherein a lateral distance between the new outer edge of the flexible glass sheet and the outer periphery of the first major surface of the carrier substrate is greater than 0 μm and less than or equal to 750 μm; and

wherein separating the outer edge portion from the bonded portion of the flexible glass sheet does not comprise cutting the carrier substrate.

2. The method of claim 1, wherein step (II) includes providing at least one defect in at least one of the first major surface and the second major surface of the flexible glass sheet on the separation path.

3. The method of claim 2, wherein the at least one defect comprises a plurality of defects in the first major surface of the flexible glass sheet, and the plurality of defects are spaced apart from one another along the separation path, and further wherein at least one of (i) each defect of the plurality of defects extends from the first major surface to a depth below the first major surface of less than or equal to 20% of the thickness of the flexible glass sheet, and (ii) the space between adjacent defects of the plurality of defects is within a range of from 15 μm to 25 μm.

4. The method of claim 3, wherein step (II) further includes traversing a beam of electromagnetic radiation over the first major surface along the separation path to:

(a) transform at least one of the plurality of defects into a full body crack intersecting the first major surface and the second major surface of the flexible glass sheet; and

(b) propagate the full body crack through remaining defects of the plurality of defects along the separation path, thereby producing a full body separation of the outer edge portion from the bonded portion of the flexible glass sheet while the second major surface of the flexible glass sheet remains bonded to the first major surface of the carrier substrate.

5. The method of claim 2, wherein step (II) further includes traversing a beam of electromagnetic radiation over the first major surface followed by a cooling stream of fluid along the separation path to:

(a) transform the at least one defect into a full body crack intersecting the first major surface and the second major surface of the flexible glass sheet; and

(b) propagate the full body crack along the separation path, thereby producing a full body separation of the outer edge portion from the bonded portion of the flexible glass sheet while the second major surface of the flexible glass sheet remains bonded to the first major surface of the carrier substrate.

6. The method of claim 2, wherein the at least one defect comprises a scribe line in the first major surface of the flexible glass sheet along the separation path and wherein step (II) further includes applying a bending force to the outer edge portion to separate the outer edge portion from the bonded portion of the flexible glass sheet.

7. The method of any one of claims 1 and 3-5, wherein during step (II), the outer edge portion is bent relative to the bonded portion of the flexible glass sheet to place the first major surface of the flexible glass sheet along the separation path in tension.

8. The method of any one of claims 1-7, wherein the new outer edge of the flexible glass sheet has a B10 strength within a range of from 150 MPa to 200 MPa.

9. The method of any one of claims 1-8, wherein step (I) provides the second major surface of the flexible glass sheet with a larger surface area than a surface area of the first major surface of the carrier substrate.

10. The method of claim 9, wherein step (I) provides that the outer edge portion of the flexible glass sheet laterally circumscribes the first major surface of the carrier substrate.

11. A glass-carrier assembly comprising:

a flexible glass sheet comprising a first major surface and a second major surface opposing the first major surface, a thickness between the first major surface and the second major surface equal to or less than 300 μm;

a carrier substrate comprising a first major surface and a second major surface opposing the first major surface of the carrier substrate, and a perimeter, the first major surface of the carrier substrate being temporarily bonded to the second major surface of the flexible glass sheet,

wherein either the flexible glass sheet is smaller than the carrier substrate by up to 750 microns at each point around the perimeter, or the carrier is smaller than the flexible glass sheet by up to 750 microns at each point around the perimeter.

12. The glass-carrier assembly of claim 11, wherein the outer periphery of the first major surface of the carrier substrate laterally extends beyond the new outer edge of the flexible glass sheet.