[0038a] In one aspect, the present disclosure provides a method of making the clear glass using a conventional float non-vacuum glass system, the method comprising:

providing a glass batch having ingredients to make the glass having the basic soda-lime-silica glass composition and colorants;

melting the glass batch to provide a pool of molten glass;

flowing the molten glass onto a molten tin bath;

moving the molten glass on the surface of the molten tin bath, while controllably cooling the glass and applying forces to the glass to provide a glass of a desired thickness; and

removing the glass from the molten tin bath,

wherein the glass batch comprises between 5 to 20 wt. % of a low iron dolomite wherein the low iron dolomite comprises a total iron content, expressed as Fe_2O_3 content, of less than 0.02 wt. %, wherein the low iron dolomite comprises a total CaO content of between 30 and 35 wt. %, and wherein the low iron dolomite comprises an MgO content of between 15 and 25 wt. %, and wherein the glass has a redox ratio (as expressed as FeO/Fe_2O_3) in the range of 0.30 to 0.55.

[0038b] In another aspect, the present disclosure provides a method of forming clear glass comprising

mixing raw materials, wherein the raw materials comprise cullet, sand, soda ash, salt cake, limestone and dolomite, wherein the dolomite comprises:

SiO_2	0 to 5 wt. %
Na_2O	0 to 1 wt. %
CaO	30 to 35 wt. %
MgO	15 to 25 wt. %
Al_2O_3	0 to 1 wt. %
SO_3	0 to 1 wt. %
Fe_2O_3	0 to less than 0.02 wt. %

melting the raw materials to form molten glass;

flowing the molten glass onto a molten tin bath; moving the molten glass on the surface of the molten tin bath while controllably cooling the molten glass and applying forces to the molten glass to form a glass of a desired thickness and a desired width; and

removing the glass from the molten bath,

wherein the dolomite is a low iron dolomite, wherein the raw materials comprise between 5 to 20 wt. % of the dolomite, and wherein the glass has a redox ratio (as expressed as FeO/Fe_2O_3) in the range of 0.30 to 0.55.

[0038c] In another aspect, the present disclosure provides a glass composition comprising

SiO_2	65 to 75 wt. %
Na_2O	10 to 20 wt. %
K_2O	0 to 5 wt. %
CaO	5 to 15 wt. %
MgO	2 to 10 wt. %
Al_2O_3	0 to 5 wt. %
SO_3	0 to 0.5 wt. %
Cr_2O_3	0.00003 to 0.001 wt. %
Fe_2O_3	0.02 to 0.07 wt. %
FeO	0.005 to 0.03 wt. %
Redox (FeO/Fe_2O_3)	0.2 to 0.6

wherein the glass composition is formed from a glass batch that comprises between 5 to 20 wt. % of a low iron dolomite wherein the low iron dolomite comprises a total iron content, expressed as Fe_2O_3 content, of less than 0.02 wt. %, and wherein the low iron dolomite comprises a total CaO content of between 30 and 35 wt. % and wherein the low iron dolomite comprises an MgO content of between 15 and 25 wt. %.

[0039] Further non-limiting examples or aspects are set forth and described in the following clauses.

[0040] Clause 1: A clear glass having a soda-lime-silica glass composition comprising: total iron oxide (Fe_2O_3) of 0.02 to 0.06 wt. %;, ferrous (FeO) from 0.006 to 0.02 wt. %; redox (FeO/Fe_2O_3) from about 0.30 to 0.55 wt. %; Cr_2O_3 from about 0.3 to 10 ppm; TiO_2 from about 50 to 500 ppm; SnO_2 from about 10 to 500 ppm; and SO_3 from about 0.10 to 0.25 wt. %.

THE INVENTION CLAIMED IS

1. A method of making the clear glass using a conventional float non-vacuum glass system, the method comprising:

providing a glass batch having ingredients to make the glass having the basic soda-lime-silica glass composition and colorants;

melting the glass batch to provide a pool of molten glass;

flowing the molten glass onto a molten tin bath;

moving the molten glass on the surface of the molten tin bath, while controllably cooling the glass and applying forces to the glass to provide a glass of a desired thickness; and

removing the glass from the molten tin bath,

wherein the glass batch comprises between 5 to 20 wt. % of a low iron dolomite wherein the low iron dolomite comprises a total iron content, expressed as Fe_2O_3 content, of less than 0.02 wt. %, wherein the low iron dolomite comprises a total CaO content of between 30 and 35 wt. %, and wherein the low iron dolomite comprises an MgO content of between 15 and 25 wt. %, and wherein the glass has a redox ratio (as expressed as FeO/Fe_2O_3) in the range of 0.30 to 0.55.

2. The method of claim 1, wherein the conventional float non-vacuum glass system contains a furnace, the combustion of the furnace produced by a firing of air and/or gas, or by a firing of oxygen/gas.

3. The method of claim 2, wherein the redox ratio in the glass in the range of 0.30 to 0.55 is achieved by adjusting the amount of oxygen and air in the combustion gas.

4. A method of forming clear glass comprising

mixing raw materials, wherein the raw materials comprise cullet, sand, soda ash, salt cake, limestone and dolomite, wherein the dolomite comprises:

SiO_2	0 to 5 wt. %
Na_2O	0 to 1 wt. %
CaO	30 to 35 wt. %
MgO	15 to 25 wt. %
Al_2O_3	0 to 1 wt. %
SO_3	0 to 1 wt. %
Fe_2O_3	0 to less than 0.02 wt. %

melting the raw materials to form molten glass;

flowing the molten glass onto a molten tin bath; moving the molten glass on the surface of the molten tin bath while controllably cooling the molten glass and applying forces to the molten glass to form a glass of a desired thickness and a desired width; and

removing the glass from the molten bath,

wherein the dolomite is a low iron dolomite, wherein the raw materials comprise between 5 to 20 wt. % of the dolomite, and wherein the glass has a redox ratio (as expressed as FeO/Fe_2O_3) in the range of 0.30 to 0.55.

5. The method of claim 4, wherein the raw materials are present in the following amounts:

Cullet	0 to 15 wt. %
Sand	max 65 wt. %
Dolomite	5 to 20 wt. %
Salt Cake	0.2 to 1.0 wt. %
Soda Ash	13 to 23 wt. %

6. The method of any of claim 4, wherein the sand comprises:

SiO_2	95 to 100 wt. %
Na_2O	0 to 1 wt. %
CaO	0 to 0.5 wt. %
MgO	0 to 1 wt. %
Al_2O_3	0 to 1 wt. %
SO_3	0 to 1 wt. %
Fe_2O_3	0 to 1 wt. %

7. The method of claim 4, wherein the salt cake comprises:

SiO_2	0 to 1 wt.%
Na_2O	50 to 75 wt.%
CaO	0 to 1 wt.%
MgO	0 to 1 wt.%
Al_2O_3	0 to 1 wt.%

SO_3	0 to 1 wt.%
Fe_2O_3	0 to 1 wt.%

8. The method of claim 4, wherein the cullet comprises:

SiO_2	65 to 75 wt.%
Na_2O	10 to 20 wt.%
CaO	5 to 15 wt.%
MgO	0 to 5 wt.%
Al_2O_3	0 to 5 wt.%
SO_3	0 to 1 wt.%
Fe_2O_3	0 to 1 wt.%

9. The method of claim 4, wherein the limestone comprises:

SiO_2	0 to 5 wt.%
Na_2O	0 to 1 wt.%
CaO	40 to 65 wt.%
MgO	10 to 30 wt.%
Al_2O_3	0 to 1 wt.%
SO_3	0 to 1 wt.%
Fe_2O_3	0 to 0.5 wt.%

10. The method of claim 4, wherein the soda ash comprises:

SiO_2	0 to 1 wt.%
Na_2O	40 to 70 wt.%
CaO	0 to 1 wt.%
MgO	0 to 1 wt.%
Al_2O_3	0 to 1 wt.%
SO_3	0 to 1 wt.%
Fe_2O_3	0 to 1 wt.%

11. The method of claim 4, wherein the raw materials further comprise coal or graphite.

12. The method of claim 11, wherein the coal or graphite is in a range of 0.01 to 0.3 wt. %.

13. The method of claim 11, wherein the coal or graphite comprises

SiO_2	0 to 1 wt. %
Na_2O	0 to 1 wt. %
CaO	0 to 1 wt. %
MgO	0 to 1 wt. %
Al_2O_3	0 to 1 wt. %
SO_3	0 to 1 wt. %
Fe_2O_3	0 to 5 wt. %

14. A glass composition comprising

SiO_2	65 to 75 wt. %
Na_2O	10 to 20 wt. %
K_2O	0 to 5 wt. %
CaO	5 to 15 wt. %
MgO	2 to 10 wt. %
Al_2O_3	0 to 5 wt. %
SO_3	0 to 0.5 wt. %
Cr_2O_3	0.00003 to 0.001 wt. %
Fe_2O_3	0.02 to 0.07 wt. %
FeO	0.005 to 0.03 wt. %
Redox (FeO/Fe_2O_3)	0.2 to 0.6

wherein the glass composition is formed from a glass batch that comprises between 5 to 20 wt. % of a low iron dolomite wherein the low iron dolomite comprises a total iron content, expressed as Fe_2O_3 content, of less than 0.02 wt. %, and wherein the low iron dolomite comprises a total CaO content of between 30 and 35 wt. % and wherein the low iron dolomite comprises an MgO content of between 15 and 25 wt. %.

15. The glass composition of claim 14, wherein the redox is 0.30 to 0.46.

16. The glass composition according to claim 14, further comprising 50 to 500 ppm of TiO_2.

17. The glass composition of claim 14, further comprising a glass having the glass composition, wherein the glass comprises a luminous transmittance (L_{tc}) of at least 85%; an ultraviolet transmittance (Tuv) of less than 90%; an infrared transmittance (Tir) of less than 90%; a total solar energy transmittance (TSET) of at most 92%; a lightness value (L*) of 90 to 99; an a* color channel in the range of 1 to -2; a b* color channel of in the range of 1 to -1; a dominant wavelength of 470 to 525 nm; and a purity (Pe) of not more than 2%.

18. The glass composition of claim 14, further comprising 25 to 500 ppm of SnO_2.

19. The glass composition of 14, wherein the low content of iron oxide being modified in a glass batch is modified by low iron raw materials, said low iron raw materials comprising low iron sand, low iron limestone, low iron dolomite, low iron clear cullet or a combination there.