SODA LIME SILICA GLASS WITH HIGH VISIBLE LIGHT TRANSMITTANCE

Abstract

The present invention provides a glass sheet having soda-lime-silica glass composition with a high visible light transmittance (L_{tC}) of at least 89%; with a dominant wavelength (DW) from about 490 to 505 nanometers and purity (Pe) of no more than 1% for control thickness of 5.66 mm, and methods of making the same. The glass composition comprising a low iron raw material, a 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; 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 a critical amount from about 0.10 to 0.25 wt. % of SO_3. The low content of iron oxide is achieved by the partial substitution of regular raw materials by low iron raw materials, with a complete substitution of regular dolomite by a low iron dolomite with a maximum content of 0.020 wt. % Fe_2O_3.

[FIG. 1A]