LEADFREE ENAMELS

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Whether on baby bottles, beer mugs or perfume bottles - imprints on glass are mainly made of enamel inks. If the inks are to be resistant, they must be made of chemically resistant glass.
In order to lower the melting temperature without endangering the basic glass, toxic lead or bismuth oxide is often added to printing inks to lower the melting temperature.

Fraunhofer ISC has developed printing inks for glass without any toxic components (according to RoHS) such as lead, arsenic or antimony.

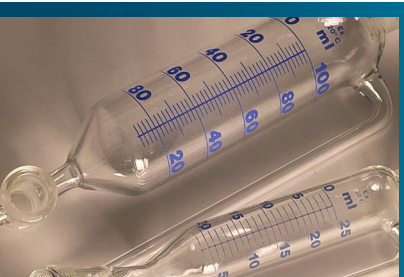
Instead, the decorative glass consists mainly of zinc oxide as well as aluminum, boron and silicon oxide. The zinc oxide provides a low melting point so that the inks can be melted without deforming the base glass.

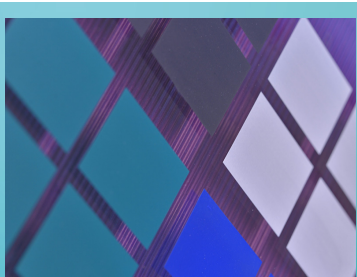
Properties

- Fusing Temperature: 580 - 650°C
- High color brilliance
- Adaptable expansion coefficient (dep. on base glass)

Applications

- Container and drinking glasses made of soda lime glass
- Household goods, laboratory glass and ampoules made of borosilicate glass





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