

2 February 2012

Risks caused by inappropriate candle containers and burners

The suitability of containers and candle holders for the respective type of candle is most crucial for avoiding fire risks

The way consumers use candles has changed over the past years to the effect that more and more tea lights and also other candles are burned in containers and candle holders made of glass, metal or other materials and in lanterns as well. This unfortunately results in dangerous situations from time to time that are almost always caused by choosing inappropriate containers and candle holders for the respective candle types:

- *very high flames*
- *the whole candle surface catching fire in rare cases*
- *high surface temperature of the container*
- *bursting containers*

These situations are dangerous for consumers because close-by flammable objects could also catch fire or they could harm themselves when touching the container.

The reason for the phenomena listed above is almost always a heat buildup inside the container that is supported by:

- **inappropriate geometry of the container**

If the candle is too big compared to the container, the opening of the container is too small, or a deep container has got no ventilation holes, the air circulation might not be sufficient.

- **inappropriate container materials**

It is important that the container allows the heat radiated by the flame to pass through. This important heat efflux is partly hindered however, either by materials with a low thermal conductivity or by special surface treatments that reflect the heat radiation back into the container (e.g. metal-coated surfaces).

These risks can be avoided by adhering to some rules:

- *Do only use containers and candle burners that are explicitly intended for burning candles.*
- *Do preferably use containers and candles that belong together since they are designed to match each other.*

- *Keep the fundamentals listed above in mind if containers and candles are offered separately or candles are bought as a replacement.*
- *Follow the manufacturer's safety information on containers and candles, especially the information „Never leave a burning candle unattended.“.*