

MAUSER® SM LP

Product Information



MAUSER® SM LP (Light Protect) - white and opaque

With the new **MAUSER® SM LP**, the Mauser Group is expanding its well known family of composite IBCs. The acronym **LP** refers to a composite IBC specifically developed for light-sensitive filling goods.

Compared to the standard MAUSER® SM IBC with its non coloured (translucent) inner bottle, the **MAUSER® SM LP** has an opaque - white coloured - inner bottle which provides almost 100% light protection for the contents.

Evenly mixed with HMW HDPE and blow moulded to form the inner bottle, this white pigment provides light protection for the filling goods over the total surface of the bottle – even in geometrically complex areas like the discharge valve and the filling opening. Compared to composite IBCs with a full metal casing, this is a decisive advantage.

Unlike composite IBCs providing light protection through black coloured inner bottles, the white coloured inner bottle of the **MAUSER® SM LP** reflects the sunlight and therefore will limit temperature levels to a maximum of 35°C whereas those coloured black heat up to over 80°C. This is of particular significance because many light-sensitive filling goods also tend to react chemically at such elevated temperatures.

MAUSER® SM LP is available as **non UN** and **UN** tested packaging providing the same performance as standard MAUSER® SM containers.

MAUSER® SM LP is available with all customer and application-approved features and variations for which the following range of standard MAUSER® SM IBC containers are noted:

MAUSER® SM 6 LP & MAUSER® SM 6 LP UN
MAUSER® SM 13 LP & MAUSER® SM 13 LP UN
MAUSER® SM 15 LP & MAUSER® SM 15 LP UN

- with wooden pallet,
- with steel/plastic composite pallet
- with plastics pallet.



SM6 LP UN



SM13 LP UN



SM15 LP UN

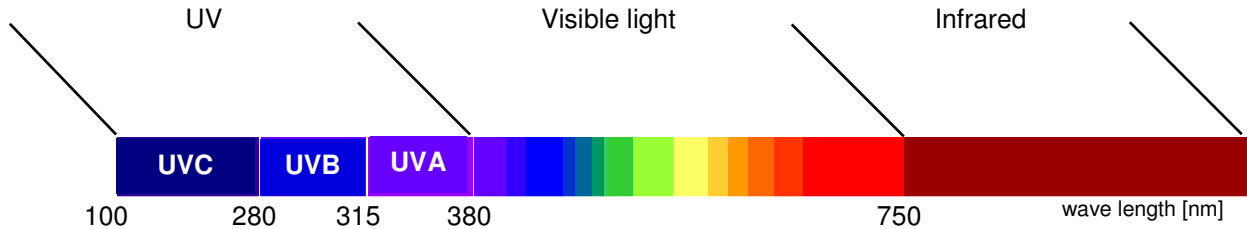
With its white coloured inner bottle, the **MAUSER® SM LP** provides the best combination of almost 100% opacity with a minimum temperature increase through sunlight. This IBC type therefore is the optimum solution for light and heat sensitive filling goods to be transported in composite IBCs.

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Technical background:

Light is electro-magnetic radiation which becomes visible to the human eye in a wavelength range from 380nm (violet) to 750nm (red).



UV:

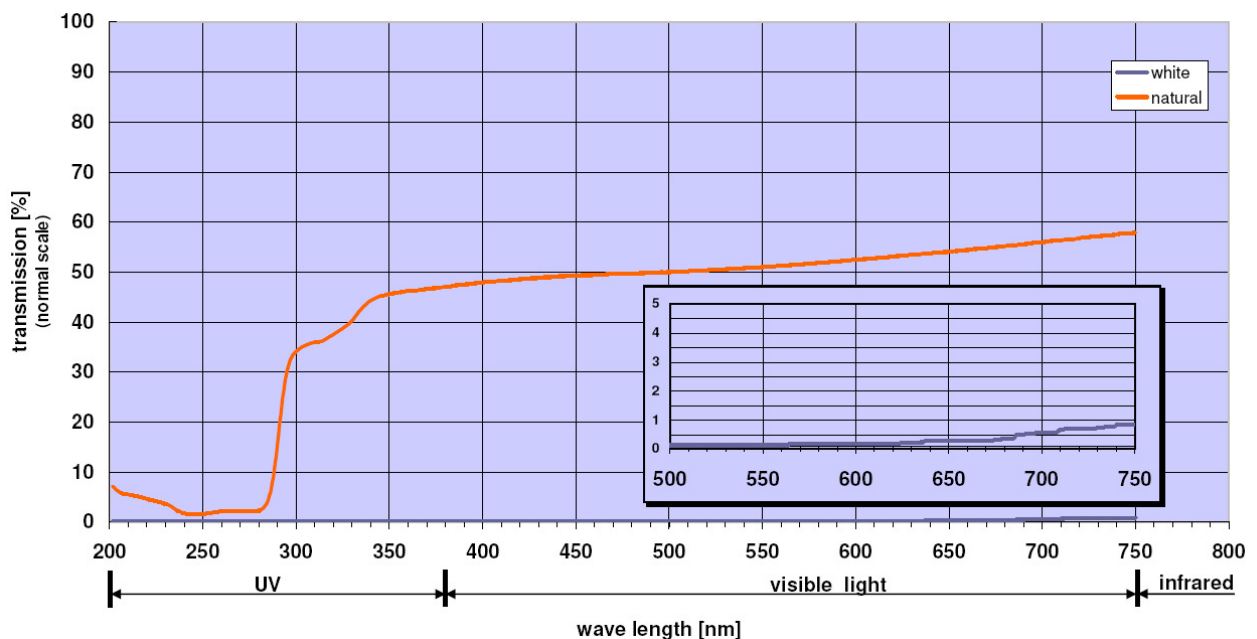
The chemical structure of polyethylene is destroyed when exposed to long term UV radiation. Such additional material oxidization causes embrittlement and, eventually, cracking of the finished product – unless steps are taken to avoid such unacceptable results.

Therefore, all MAUSER® SM IBC inner bottles, produced within the MAUSER Group, are made from UV stabilized HMW HDPE as standard. It's anti oxidizing additive secures the long term stability of this translucent inner bottle during outside storage. In addition, at the minimum wall thickness of 1.5 mm, 99.9% of UV radiation is absorbed thus preventing damage to the contents.

Visible:

However, with this part of the light spectrum, the percentage of absorption by non coloured polyethylene (with a minimum wall thickness of 1.5 mm) is at a level of approx. 45 to 60%. Further filtration can be achieved by adding a colour to the stabilised polyethylene. The type and amount of colour pigment incorporated into this polymer are the key issues in providing successful visible light protection. With the white coloured pigment used for the MAUSER® SM LP IBC, a filtration of above 99% is achieved.

The effectiveness of **MAUSER® SM LP** white coloured inner bottles has been proved by independent laboratory measurements.



Within the Visible light wavelength, the percentage of light being transmitted into the inner bottle is less than 1%. Within the UV light spectrum, this % decreases further and is below 0.1%.