



HOT FILLING OF POLYOLEFIN CONTAINERS

All of Siena Plastic's containers are produced with premium grade HDPE. Although HDPE is one of the most durable compounds available for packaging, it is important that fillers understand a few key items when filling their products into our containers.

Hot Filling:

We recommend hot filling temperature of 150 degrees F (65.5 degrees C) or less. The absolute maximum hot filling temperature is 180 degrees F (82 degrees C). If higher filling temperatures are exhibited then it is possible that the integrity of the drum, jerrican or open head pail may be compromised. It is also recommended that screw caps, pail covers or drum fittings be installed quickly (a few seconds) after hot filling to minimize any paneling or distortion of the container.

Vacuum:

When product is heated it expands. When product cools it contracts. If you fill the containers with hot product the expanded product will almost immediately begin cooling and contracting and will create a vacuum within the container. This vacuum may create container paneling and compromise the integrity of the container. When the product is filled in the container, there is always air above the product. To minimize the vacuum effect, it is recommended that the amount of air above the product be minimized because air contracts more quickly than the product itself. Too much air (head space) may cause more of a vacuum on the sealed container.

Stacking:

After filling a container hot, it is strongly advised that the container be allowed to cool to room temperature one-high. If hot containers are stacked on top of each other while hot there is a strong possibility that the lower containers in the stack will panel or buckle. Allowing the product to cool to room temperature will help minimize any paneling or buckling issues when stacking the filled containers. It is also recommended that pallets in good condition be used when stacking filled containers that have cooled to room temperature. Damaged or worn pallets may cause undue stress on the lower level containers possibly causing container distortion or damage.