

ECOLEAN BENEFITS

# MICROWAVEABILITY



## Offer your consumers the convenience of a microwaveable package.

A heated lunch or drink on-the-go fits well with today's consumer demands. With the Ecolean package you can offer your consumers true convenience. It is easy to use for everyone and with its microwaveability you can add value to the everyday life of the consumer.

All Ecolean packages can be heated safely in microwave up to 70°C (158°F), since they don't contain any aluminum, unlike many aseptic packages.

### KEY BENEFITS

- Add value and simplicity to your consumers' everyday life.
- Expand your portfolio with new product segments; hot drinks, soups or sauces.
- No need for a different package. All of our packages are microwaveable.

# MICROWAVEABILITY - Q & A

**Q:** What is the maximum recommended temperature of the product from the microwave oven in Ecolean package?

**A:** The product should not be heated above 70°C (158°F). Serving hot beverages can easily create scald burns and it is suitable to find a temperature that is satisfactory for the consumer and that decreases the risk of burns.

Good to know - the preferred temperature to consume coffee has been found to be 60 ± 8.3°C (140 ± 15°F). (Brown & Diller, 2008)

**Q:** What effect (Watts, W) should be used?

**A:** The effect setting may be quite different for different microwave ovens. The Ecolean packaging material can tolerate the highest setting on a conventional microwave oven, but the key factor is the product (which is to be heated) inside the Ecolean package. The product temperature should not exceed 70°C (158°F). Ecolean can support you in determining specific recommendations for your product.

**Q:** Will the air handle in Ecolean® Air deflate in the microwave oven?

**A:** No, if the temperature is kept to maximum 70°C (158°F) for a maximum of 2 hours, the air handle will not deflate.

**Q:** For how long can the product be heated?

**A:** Different products will need slightly different amounts of energy to heat up to the desired temperature. It is important to adapt the timing of the heating recommendation to the specific product. The product should not be kept at 70°C (158°F) inside the package for more than 2 hours.

Volume	Approximate heating time with below conditions. <sup>1</sup>		
	Water	Milk (3 %)	Cream (36 %)
125 ml	00:40	00:35	00:35
200 ml	01:05	01:00	01:00
500 ml	02:50	02:30	02:30
1000 ml	05:30	05:00	05:00

<sup>1</sup> Heating in microwave oven to ca. 55°C  
 Microwave effect from a conventional microwave oven set at 800W  
 Refrigerated product. Initial temperature 4°C  
 Actual heating time is dependent on actual microwave effect, initial temperature and the product itself.

**Q:** Will the air handle be too hot to handle after heating the package?

**A:** The risk of scald burns would come from touching the product area and can happen at a temperature of 70°C (158°F). Hot products should always be handled with care. The material in the air handle will not be as warm as the product, but there is a risk of touching the product area when holding the air handle.

**Q:** Why does the package need to be opened before heating in a microwave?

**A:** To avoid pressure build up it is recommended that the package is opened before heating in a microwave oven. It is also less risk of burns when opening the package with a cold or ambient product, compared to a hot product.

**Q:** Can the printed inks / packaging design handle the microwave?

**A:** Yes. The package, including the printed design, should not be heated above 70°C (158°F).

**Q:** Can the consumer heat several packages at once?

**A:** There is no material related issue by heating several packages at one time. The limiting factor is the capacity of the microwave oven.

**Q:** Can the SnapQuick™ be heated in the microwave oven?

**A:** It is not recommended to heat packages with the reclosing device SnapQuick™ attached. The thermoformed PET in SnapQuick™ might risk losing its shape and function.

**Q:** Other products/brands have the time and effect printed on the package. Can this be printed on the Ecolean package?

**A:** The customer can decide to do this. There are available examples where heating suggestions are made on the package. It will be affected by the product and Ecolean can therefore not give a general suggestion. Ecolean can support you in determining specific recommendations for your product.

