



# Lubriplate® H1 Lubricants

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## ESL milk production

### ESL treatment



ESL treatment Four process engineering methods for Extra Shelf Life milk (ESL) treatment are available: direct heating, indirect heating, microfiltration and deep-bed filtration. In the ESL direct heating plant, the product is first regeneratively preheated to 70 °C – 85 °C and then heated to maximum 127 °C by direct steam injection. The milk is held at this temperature for approximately three seconds and is then cooled down to 70 °C - 85 °C in a flash cooler. To ensure the product is well stabilised, aseptic homogenisation is carried out at a temperature of approximately 70 °C. As a result of these extremely short heating and cooling times at a high heating temperature, the direct process offers the advantage of top product quality. Taste tests have shown that from an organoleptic point of view the product is virtually comparable with conventionally pasteurised fresh milk. For the ESL indirect heating plant, the pre-treatment of the milk corresponds to the process for the ESL direct heating plant. The product is supplied to the ESL indirect heating plant from storage tanks. The milk is first heated to 70 °C by regenerative heat exchange and then specially homogenised.

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