Task:

Application field: Food

Material: Gummi baers and licorice

Feed size: 0-30 mm

Feed quantity: 500 g

Material specification(s): soft, tough

Customer requirement(s): homogeneous sample

Subsequent analysis: Determination of fat, carbohydrates and protein

Solution:

Selected instrument(s): Knife Mill Grindomix GM 300

Configuration(s): Cutting container of stainless steel incl. knife holder, autoclavable, 5 litres for GM 300; Gravity lid of plastic with overflow channels GM 300, autoclavable

Parameter(s): pre-grinding: 40 sec at 1000 rpm with direction reversal every 5 sec
fine-grinding: 20 sec at 4000 rpm, direction impact

Time: 1 min. (whole preparation)

Achieved result(s): homogeneous sample, predominantly < 1 mm

Remark(s): The sample first is pre-embrittled with 500 g dry ice. The mixture afterwards is homogenised in the Knife Mill GM 300. The gravity lid stays at top position during the whole grinding process.

Recommendation: The Knife Mill Grindomix GM 300 is suitable to homogenise the sample material under the above mentioned conditions.
Pictures of the sample

Fig. 1: Original sample

Fig. 2: Sample with dry ice in cutting container

Fig. 3: Sample in cutting container after homogenisation

Fig. 4: Homogenised sample