Micro Fine
Grain Peeling

Micro Fine Grain Peeling,
especially in Potato Processing Plants

Description of the method

Potatoes, carrots and other tubers and roots can be peeled very smoothly on DORNOW peeling machines by means of a very fine carborundum graining. We call this type of peeling micro fine-grain peeling.

The smoothness of the surface is similar to that of steam-peeled potatoes, carrots etc.

It is known that one can grind e. g. wood by means of fine emery paper (with a very fine graining) so smoothly that it gets a nearly mirror-like and shining surface. A similar effect is caused by the micro fine-grain tools in DORNOW peeling machines with their peeling utensils which have a very fine coating.

Advantages for the factories

The industrial potato peeling factories are enabled - by means of micro fine-graining - to market smoothly peeled potatoes of accurate appearance, even without using blade peelers. Surely, blade peeling will keep its appropriate place in many fields. Please read also our relevant paper "Blade Peeling in Industrial Peeling Plants - Necessity or Luxury?" (Q 28).

The chips (GB: crisps) industry appears to be a good field for using machines provided with micro fine-grain coating. Although there have not yet been any relevant investigations: the smooth edges of the cut chip slices are supposed to absorb less oil than slices from coarsely peeled potatoes.

One more advantage for the chips (crisps) industry: If micro fine-grain peeling is constantly applied, it is only the outside skins that are regularly removed. It is now common practice in the chips (crisps) industry that in the majority of cases batch peelers are used which have a coarse coating with the granulation C 14, i. e. 14 grains/cm^2. This type of coating is necessary in these machines, as in case of a finer graining the peeling tools tend to get choked so that the capacity of the machines falls off.

Dornow food technology GmbH, Willstätterstr. 12, D-40549 Düsseldorf - Germany, USt-Id.-Nr. DE119264470
Telefon++49(0)211-527060, Mobiltelefon ++49(0)172-2614932, Fax ++49(0)211-596883, E-mail office@dornow.de, Internet: www.dornow.de,
Commerzbank AG, Konto-Nr. 1452333, BLZ 300 400 00, Geschäftsführer Karl-Dietrich Dornow, Amtsgericht Düsseldorf, HRB 22597

Peeled carrots, too, offered as whole roots, not cut, have a very good appearance after micro fine-grain peeling.

Potatoes in glasses or potatoes which are sterilized in plastic bags, must have a smooth appearance. This can be achieved by micro fine-grain peeling.

Waste peel rates and micro fine-grain peeling

In all those cases where it is only the outer skin of the tuber or root that has to be removed, this type of peeling will produce very low waste percentages. Wherever the product is expected to be peeled in a very accurate and clean way, one has to put up necessarily with a higher waste rate, due to the fact that deep lying damages/eyes must be taken out. This is done by means of a coarse coating. The micro fine-grain peeling can here only provide for a smooth peeling result (coarse peeling with subsequent micro fine-grain peeling can be carried out on DORNOW roller peeling machines, with the first part of the peeling elements being coated with coarse granulation while the last part of them has micro fine-graining).

DORNOW peeling machines with possible micro fine grain peeling

All peeling rollers of the DORNOW roller peeling machines (inner diameter ranging from 500 up to 2500 mm) and the peeling discs of the multi-disc-peeling machines (MSS) as well as other peeling segments in the DORNOW peeling machines can be supplied partially or entirely with micro fine-grain coating.

The throughputs of the machines might possibly fall off a little when using micro fine-grain peeling.

The peeling machines are constructed in such a way that they can work without water/waste water in nearly all applications.

A list of interesting articles and essays regarding the topics of the preparation and processing of tubers and vegetables and associated specialist areas can be found at our Internet site at www.dornow.de, Treatises.

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DORNOW
food technology

Review of your current peeling results or before the purchase of a peeling machine or system:

Realistic test peelings with the most diverse peeling systems, with the most diverse tubers and root vegetables, some fruit, with your raw produce are possible in our Peeling Test Center!

For more information: www.dornow.de

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