



FLOURGINEERING  
RELEASE FLOURS



## TIP-TOP Release Flours



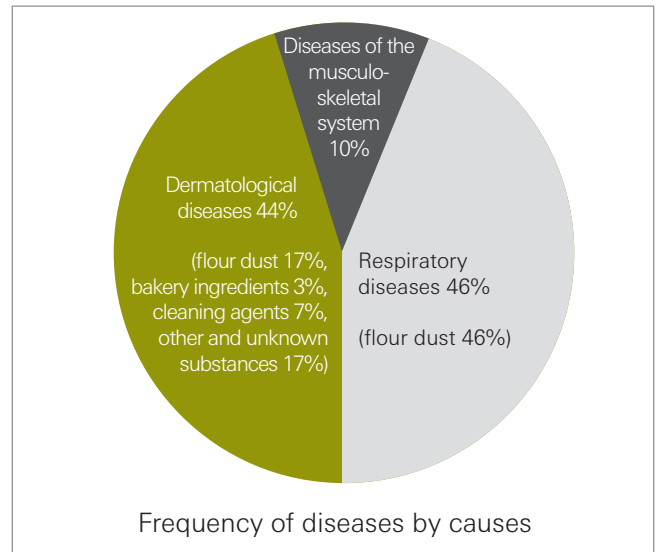
The low-dust release flours for worry-free and healthy respiration reduce the risk of respiratory diseases, improve basic hygienic conditions in production and reduce maintenance efforts and wear.

# TIP-TOP Release Flours

## Stop respiratory diseases

### Production of baked goods with conventional dusting flour

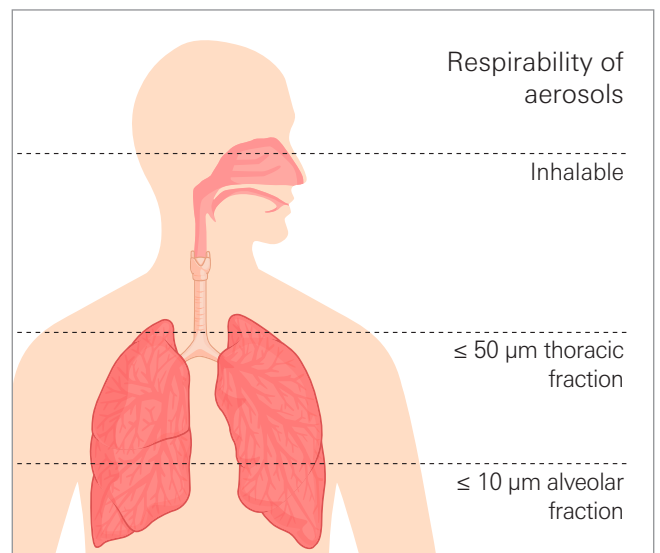
The problems associated with „fine dust“ are omnipresent in bakeries: In their production processes, bakeries use dusting or release flour, which is sprinkled manually or by machine onto the dough pieces. During this process the dusting flour is heavily dispersed and is accompanied by extreme flour dust pollution. The dispersed fine flour dust settles on machines and proofing boards. However, above all, it is present in the air in the production areas and thus poses a health risk for all staff.



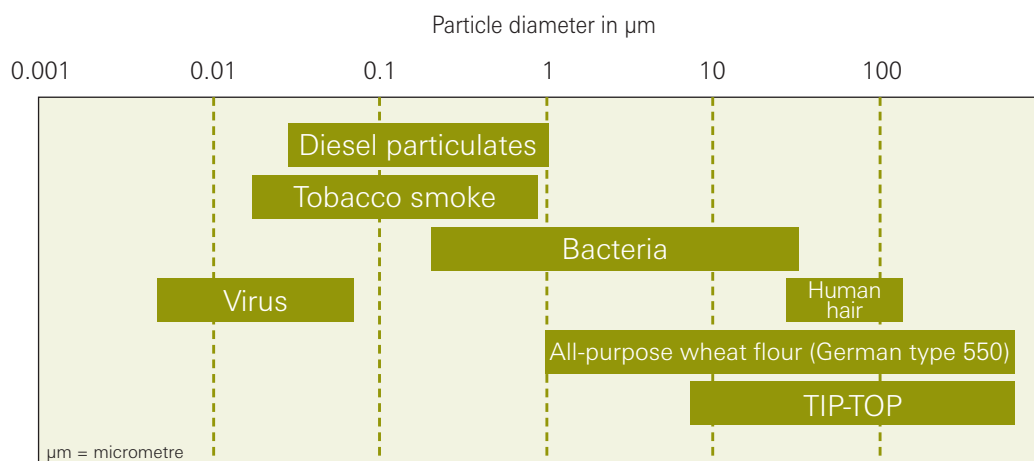
### TIP-TOP – The low-dust Release Flour

TIP-TOP branded release flours are hydrothermally treated flours with the fine fractions having been considerably modified by physical treatment. When using these flours, the air stays free from airborne flour dust. The basic hygienic conditions in the production area are therefore immediately improved. The amount of fine dust is greatly reduced and the ambient air is therefore significantly less polluted. This reduces the health risk for contracting respiratory diseases noticeably.

TIP-TOP release flours are available in various specific grain varieties: as wheat and rye flour, and in conventional as well as organic qualities.



### Sources of inhalable dust (distribution of particles)



# TIP-TOP Release Flours

## Free from fine dust

### Reduction of allergic potential

Inhaling fine airborne particles - also known as respirable dust - endangers the bronchia as the fine particles enter the bloodstream through the bronchial tubes. The respirable dust can trigger an immune reaction in the bronchial tubes. They expand, form more mucus and the bronchial muscle contracts. The consequence: The bronchial tubes clog making inhalation more difficult and inhibiting exhalation; shortness of breath may occur.

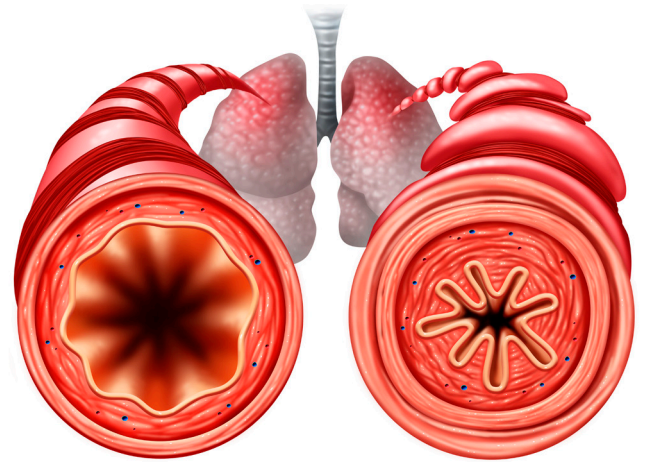
In baker's asthma, regular inhalation of the fine dust triggers such a reaction.

This disease can be avoided by using the low-dust TIP-TOP release flours. This provides added value for the bakeries: On the one hand, it is a health benefit for the employees in the production facilities and on the other hand it provides a more efficient work process.

The airborne particles are connected to each other by a specific physical process and thus acquire a larger diameter. Compared to conventionally used dusting flour, there are approx. two-thirds fewer fine dust particles in the air, which are therefore not there to be inhaled (inhalable dust).

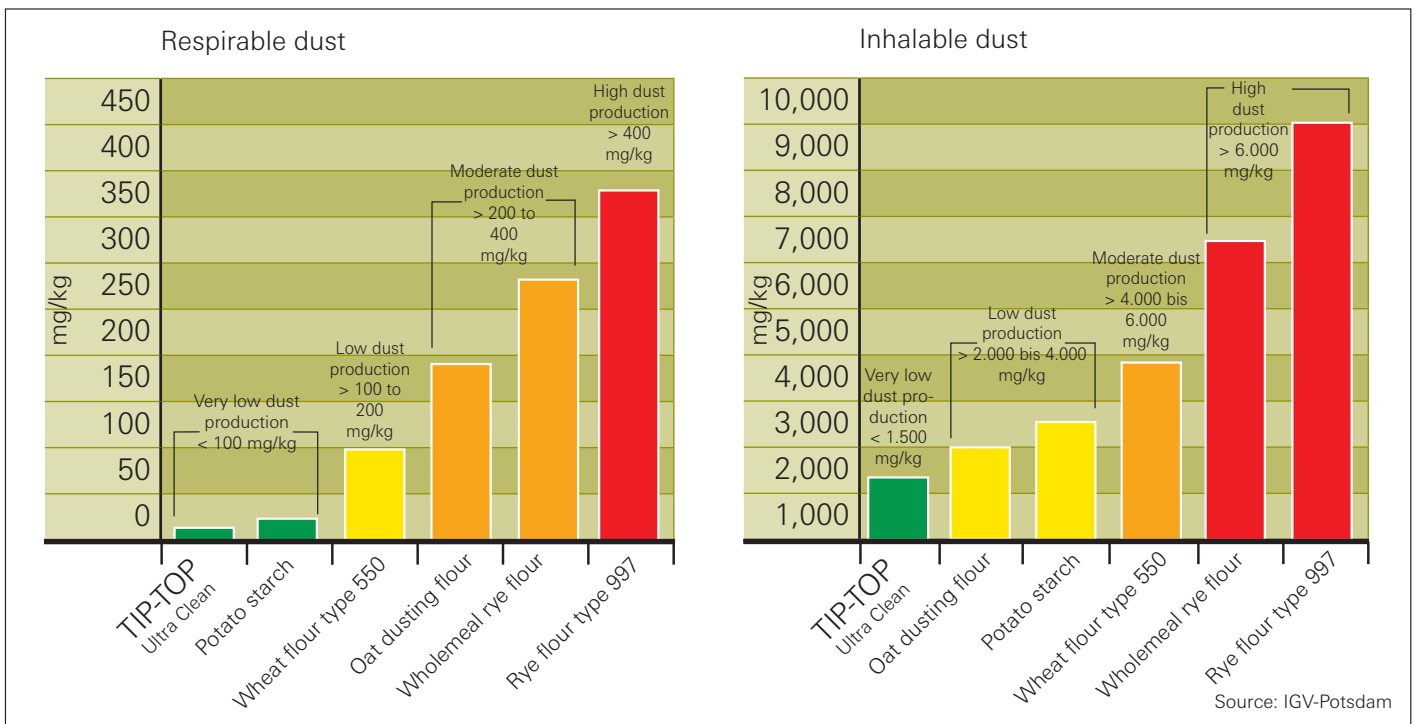
Only a very small proportion of the respirable dust reaches the bronchial tubes and the subsequent pulmonary alveoli. According to a classification by the Institute of Grain Processing IGV in Berlin, Germany, TIP-TOP release flours are low-dust flours.

Measurements performed in bakeries confirm that TIP-TOP Ultra Clean develops extremely little dust: It produces up to 80% less respirable dust compared to common wheat flour.



Healthy bronchial tube

Asthmatic bronchial tube



# TIP-TOP Release Flours

## Guaranteed mould-free

### Microbiological Benefit

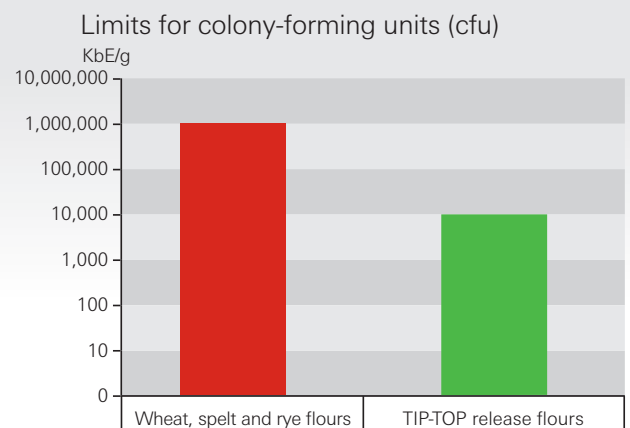
The conventional flour deposits on proofing boards and equipment components provide the optimum conditions for mould to grow.

The use of TIP-TOP release flours greatly inhibits the formation and growth of moulds.

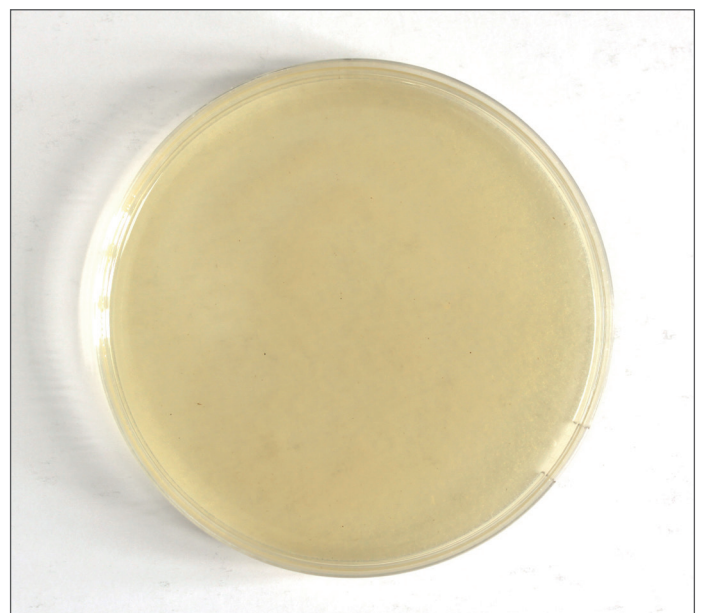


### Formation of mould

Visible mould does not primarily cause the increased health hazard, but it is the spores produced by the moulds. The spores are extremely resistant to external influences. Some spores are able to survive extreme conditions such as temperatures of over 100°C. The use of TIP-TOP release flours demonstrably reduces the development of mould, which leads to lower microbiological contamination throughout the plant.



Standard dusting flour (all-purpose wheat flour, German type 550)



TIP-TOP release flour

Flours on DG 18 agar plate after five days: Standard dusting flour (all-purpose wheat flour, German type 550) versus TIP-TOP release flour

# TIP-TOP Release Flours

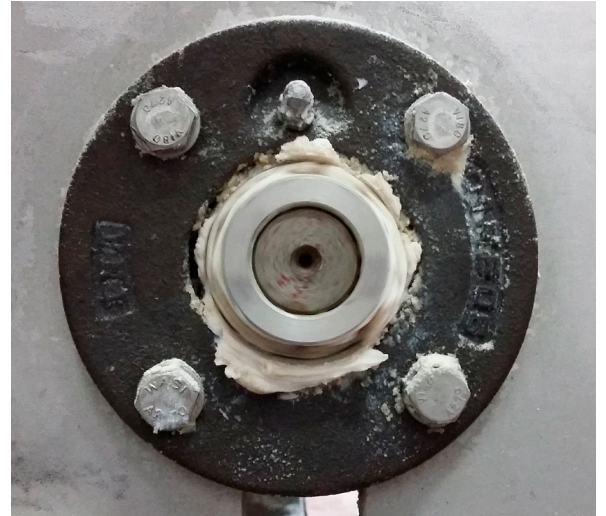
## Clean, economical and efficient

### Less flour dust reduces maintenance costs for equipment

The soiling caused by dusting flour is generally known. The dispersed flour dust travels throughout the production plant. It settles on all electronically operated systems, in gaps, gears and also on drive shafts, which leads to a high degree of contamination and thus hygiene risk.

If fine flour particles get into the cavities of these components, these complex components will show higher wear while being very difficult to clean.

Persistent deposits develop from the combination of flour, humidity and process machine oils. The results are restricted functioning and shorter operating times. It is not only mechanical components that are seriously affected, but also electronic components as well.



Drive shaft of a production line

According to hygiene requirements, the machines have to be cleaned and maintained at regular intervals. The time as well as the financial expenditure, which results from the use of standard dusting flours, is almost never assessed in terms of cost because release flours are not included as an actual cost.

Low-dust TIP-TOP release flours guarantee a clean operation. Maintenance expenditures are significantly reduced. There is considerably less wear on the equipment parts. Reducing the use of release flours by up to 70% also drastically reduces cleaning times and machine maintenance costs. Maintenance and cleaning intervals can be extended with the resultant savings on cleaning agents.

The long-term effect of low-dust TIP-TOP release flour is noticeable because the cleaning and maintenance intervals are longer and less expensive cleaning agents can be used. This offers undreamed-of potential for cost savings.

# TIP-TOP Release Flours

## Benefits at a glance

### Consumption

When replacing standard dusting flours with TIP-TOP release flours, consumption is reduced by up to 70%.



Standard dusting flour



TIP-TOP release flour

### Improved Product Quality

Low-dust TIP-TOP release flours have excellent free-flowing properties. The benefit: The release flour can be applied more easily on the dough pieces. The result: Bakery products have a uniformly floured surface and thus an appealing and appetising appearance.

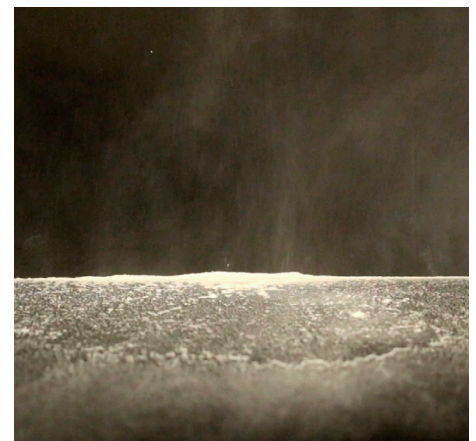


### Clean Air

Applying standard dusting flour causes the dispersion of fine dust particles. This respirable dust remains permanently in the air and is a problem for both staff and the entire production plant. Low-dust TIP-TOP release flours have a significantly lower fine fraction. Thus TIP-TOP release flours contribute to keeping the air clean.



Standard dusting flour



TIP-TOP release flour

## Use of TIP-TOP Release Flours

Low-dust TIP-TOP release flours have been developed for both industrial processing and use in artisan processes. Consequently, it has also been taken into account that adjusting the equipment to TIP-TOP release flours can be done as simply as possible.

Before starting to use TIP-TOP, the sieving equipment used must be assessed. For some machines, it is necessary to reduce the mesh size of the sieve insert in order to reduce the flow rate accordingly. The equipment is then adjusted while running. This can be done manually or digitally depending on the type of flour duster and equipment. The consumption of release flour can then be reduced by up to 70% compared to the release flour that had been used previously.

Feel free to contact us and make use of our experts' knowhow in order to perfectly adjust your system.



Recommended and nominated by / and award winner of:



BGN **Präventionspreis**

Successfully tested on equipment from:



## Benefits of TIP-TOP Release Flours:

- Low in fine dust
- Active health protection of production staff
- Potential savings of up to 70% compared to flour or flour-starch blend
- Active prevention of mould
- Reduced wear and maintenance of equipment
- Can be used for decoration purposes
- Labelling: Wheat flour or rye flour

## Product range: Release Flours

Article number	Product name
935906	PING PONG 500
935907	PING PONG 500 KP
144306	PING PONG 500 Bio
936212	TIP-TOP Ultra Clean
933612	TIP-TOP Ultra Clean KP
931112	TIP-TOP Ultra Clean Bio
936112	TIP-TOP Ultra Clean RYE
942112	TIP-TOP Ultra Clean RYE KP
936512	TIP-TOP Ultra Clean Spezial
936412	TIP-TOP Ultra Clean Spezial KP
936812	TIP-TOP Ultra Clean Spezial White
970412	TIP-TOP Ultra Clean White

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