



**GoodMills**  
Innovation



TIP-TOP Process and  
Release Flours

# TIP-TOP – LOW-DUST PROCESS AND RELEASE FLOURS

TIP-TOP release flours are hydrothermally treated flours whose fine dust particles are specifically modified and significantly reduced through a special physical process. Fine dust particles are bonded together and their particle size increased.

The result is significantly reduced dust formation, noticeable relief for the ambient air and an improved hygienic baseline in production environments.

## FLOUR DUST AS A HEALTH, HYGIENE AND EFFICIENCY RISK

In artisan and industrial bakery production, standard flours are used daily as release and dusting flours. This generates fine airborne dust particles that disperse throughout the production environment. These fine particles affect ambient air quality, place strain on employees and represent a hygiene risk. In addition, they accumulate on dough carriers, machinery and components, increasing cleaning and maintenance requirements.

In particular, respirable dust can penetrate deep into the respiratory tract when inhaled and is considered a major factor in the development of baker's asthma.



# REDUCED DUST EXPOSURE AND LOWER HEALTH RISKS

Due to their low-dust structure, significantly fewer respirable dust particles are generated. Measurements conducted in bakeries show:

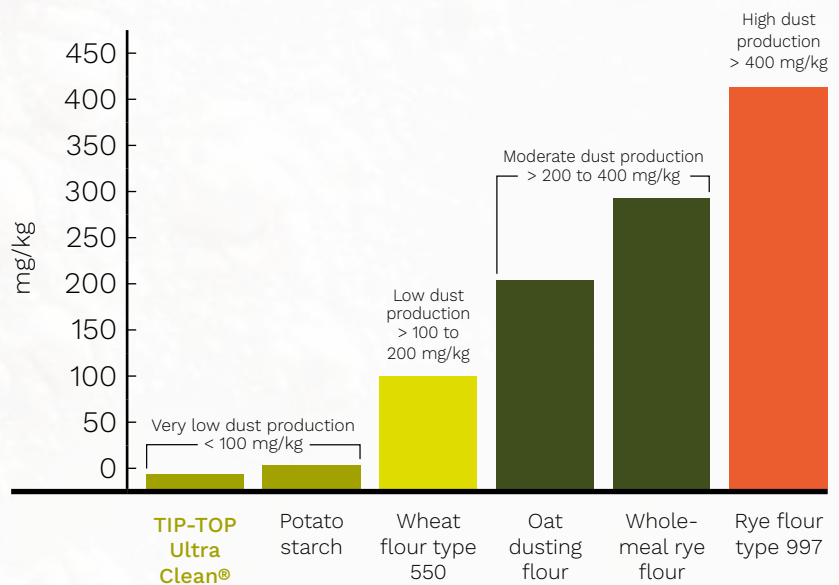
up to **80 %** less respirable dust

**2/3** fewer inhalable dust particles compared to conventional standard flour

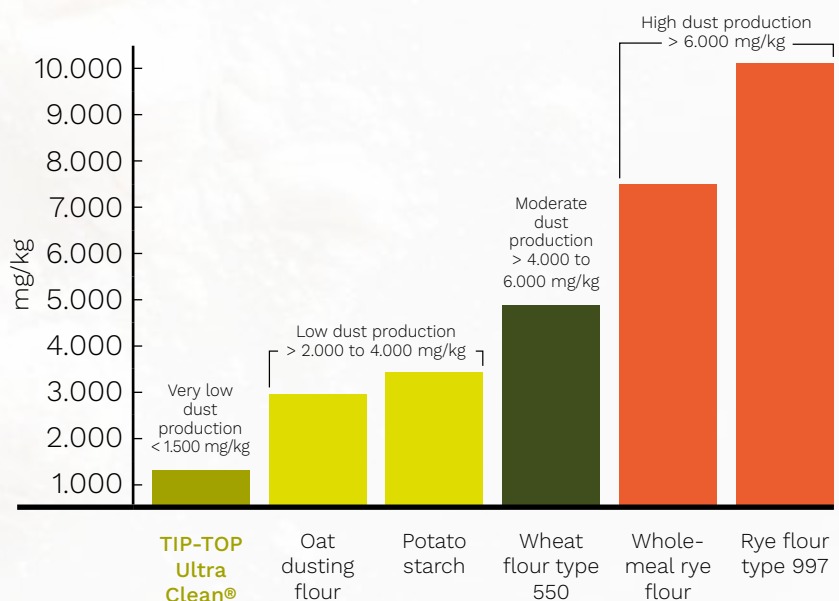
## Dust measurement of different raw materials in comparison

(Source: Institut für Getreideverarbeitung (IGV), Nuthetal, Germany)

### RESPIRABLE DUST



### INHALABLE DUST



TIP-TOP release flours are classified as low-dust by the IGV and the German Social Accident Insurance Institution for the food and hospitality industry (BGN).



” TIP-TOP  
SIGNIFICANTLY  
IMPROVES HYGIENE  
CONDITIONS IN  
PRODUCTION.

## IMPROVED HYGIENE AND REDUCED MICROBIAL LOAD

Flour deposits on dough carriers and production equipment can lead to mould growth. By using low-dust TIP-TOP release flours:

- Significantly less flour dust build-up on dough carriers and production
- mould formation and growth are reduced
- the hygienic condition of the production environment is improved

### Mould formation and mould growth in comparison

STANDARD DUSTING FLOUR  
(GERMAN WHEAT FLOUR TYPE 550)



TIP-TOP PROCESS AND RELEASE FLOUR



Flour samples on DG18 agar medium after five days



## COST EFFICIENCY AND EQUIPMENT AVAILABILITY

The accumulation of flour dust in mechanical and electronic components can lead to increased wear and tear, clogging, reduced functionality, and shorter service intervals.

The use of TIP-TOP release flours:

- reduces release flour consumption by up to 60%
- extends cleaning and maintenance intervals
- lowers the consumption of cleaning agents
- reduces downtime and maintenance costs
- increases Overall Equipment Effectiveness (OEE)
- contributes to lower product waste
- is part of the BGN incentive scheme (German Social Accident Insurance Institution for the food and hospitality industry)

In practice, the economic potential of low-dust release flours is often not fully recognised, as cleaning, maintenance and downtime are rarely attributed to the release flour used.

The use of TIP-TOP release flours has a direct impact on process cleanliness and delivers both short-term operational benefits and long-term advantages for equipment availability and maintenance costs.

### TIP-TOP RELEASE FLOURS OVERVIEW

TIP-TOP release flours are available in different grain varieties and qualities, allowing precise adaptation to process and product requirements.

Product name	Type of Cereal	Quality
TIP-TOP Ultra Clean® Spezial	Wheat	Conventional
TIP-TOP Ultra Clean®	Wheat	Conventional and organic
TIP-TOP Ultra Clean® RYE	Rye	Conventional and organic
PING-PONG® 500	Wheat	Conventional and organic



## EASY INTEGRATION INTO EXISTING PROCESSES

TIP-TOP release flours were developed for use on industrial and artisan production lines and can be integrated with minimal effort.

During implementation, existing sieve and flour dispensing systems are analysed, sieve mesh sizes adjusted where required, dispensing units and production systems fine-tuned during operation, and employees trained accordingly.

This enables a controlled reduction in release flour usage without compromising process reliability.

## YOUR BENEFITS AT A GLANCE

- Significantly reduced health risks due to lower fine dust exposure
- Improved production hygiene through reduced dust levels
- Cost reduction through up to 60% lower consumption
- Consistent dosing for attractive baked product surfaces
- Reduced wear and strain on equipment components
- Available in wheat, rye and corresponding organic qualities

Would you like to reduce  
dust exposure, release flour  
consumption and cleaning effort?

Our specialists support you in  
implementing TIP-TOP release flours and  
optimising your equipment settings.

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