

# Bread

## Troubleshooting Guide



Arden Mills



### **BREAD** HELPFUL HINTS

- Mix the bread and roll dough to full development.
- Ferment the dough for the allotted time.
- Reduce fermentation when bakery is warmer.
- Increase fermentation when dough temperature is cool.
- Remove from proofer and “dry proof” for at least 5 minutes.

### HOLES IN BREAD



### POSSIBLE CAUSES

#### **Old Dough**

Follow proper fermentation time.

#### **Improper Mixing**

Overmixing weakens the dough and undermixing underdevelops the dough; each causes poor gas retention. Mix to proper dough development.

#### **Lack of Moisture in Proofer**

Dough forms a crust, trapping gas. Adjust proofer to proper humidity.

#### **Improper Moulding**

Set moulder properly to expel most of the gas.

#### **Moulder Rollers in Poor Condition**

Trapped gas in dough causes holes. Check and repair moulders for dents, scores or holes.

#### **Humidity Too High in Proofer**

A tough crust is formed while baking, creating small holes underneath crust.

#### **Proofer Temperature Too High**

Dough ferments too quickly, contributing to holes. Adjust to proper proofer temperature.

#### **Overproofing**

Large cells are created. Check proofing time.

#### **Excess Dusting Flour**

Flour won't dispense properly, becoming trapped and creating holes. Minimize dusting flour.

#### **Excess Divider Oil**

Oil ends up in dough's interior and cells can't support it, causing holes. Minimize divider oil.

#### **Insufficient Intermediate Proof**

Results in coarse cell structure with holes. Provide proper rest time after dividing and before moulding.

#### **Dough Too Stiff**

Dough won't achieve proper cell structure, resulting in holes. Follow formula water level.

#### **Cool Oven**

Dough will rise too much in oven before yeast is killed, causing holes.

#### **Rough Handling at/in Oven**

Cell structure will collapse and not fully recover. Handle with care.

## HOLLOW BOTTOM



## POSSIBLE CAUSES

### Overmixing

Overmixing weakens the dough, causing poor gas retention. Mix to proper dough development.

### Moisture in Bottom of Pans

Dry pans thoroughly before use.

### Use of Hot Pans

Pans should be at room temperature.

### Proofer Humidity Too High

Too much steam will make dough flow, causing lack of gas retention. Adjust to proper humidity.

### Underscaling

Bread will not have enough body. Cell structure will be open, allowing heat to penetrate further than normal. Use proper amount of dough for pan size.

## LACK OF VOLUME



## POSSIBLE CAUSES

### Insufficient Yeast

Causes lack of dough maturity. Follow recommended yeast levels.

### Old Dough

Follow proper fermentation time.

### Insufficient Intermediate Proof

Dough will lack maturity. Provide proper rest time after mixing and before moulding.

### Underproofing

Bread will not have proper volume due to dense crumb. Allow for proper proofing time.

### Improper Mixing

Overmixing weakens the dough and undermixing underdevelops the dough; each causes poor gas retention. Mix to proper dough development.

### Oven Too Hot

This kills yeast too quickly, causing crust to form prematurely.

### Rough Handling at/in Oven

Product will fall and not fully recover. Handle with care.

### Dough Temperature Too Hot/Cold

Hot dough will age too quickly and become weak. Cold dough will not mature properly. Follow proper dough temperature.

### Dough Too Soft/Stiff

A soft dough requires longer mixing, causing lack of gas retention. A stiff dough won't allow for proper expansion. Follow formula water level.

### Frozen, Old or Hot Yeast

Stressed yeast causes poor gas production. Keep compressed yeast refrigerated and check freshness. Instant yeast has a shelf life of 1 year without refrigeration, as long as vacuum is not broken.

### Use of Hot/Cold Pans

Both will slow proofing down. Pans should be at room temperature.

### Lack of Moisture in Proofer

There should be enough humidity in proofer to prevent skinning of dough.

### Proofer Too Hot

High temperature will kill some of the yeast, weakening the dough. Adjust to proper temperature.

### Proofer Humidity Too High

Too much steam will make dough flow, causing lack of gas retention. Adjust to proper humidity.

### Overproofing

Product collapses when overproofed. Check proofing time.

## MOULDER REJECTS



## POSSIBLE CAUSES

### Improper Moulding

Set moulder properly to expel most of the gas.

### Old Dough

Follow proper fermentation time.

### Sticky Dough

Check water level and mixing time.

### Dough Too Stiff

Dough won't achieve proper cell structure. Follow formula water level.

### Dirty Moulder

Clean for optimal use.

### Improper Feeding of Moulder

Readjust feeding to correct.

## TOO MUCH VOLUME



## POSSIBLE CAUSES

### Overproofing

Creates large cells. Check proofing time.

### Cool Oven

Dough will rise too much in the oven before yeast is killed. Check oven temperature.

### Improper Moulding

Set moulder properly to expel most of the gas.

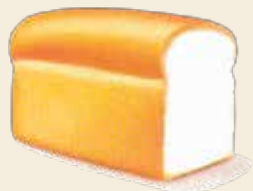
### Overscaling

Scale proper dough weight for size of pan used.

# Bread Troubleshooting Guide



## CRUST TOO THICK



## POSSIBLE CAUSES

### Cool Oven

Heat will penetrate into crumb further than normal. Check oven temperature.

### Lack of Moisture in Proofer

There should be enough humidity in proofer to prevent skinning of dough.

### Overbaking

Check oven temperature and baking time.

### Underscaling

Bread will not have enough body. Cell structure will be open, allowing heat to penetrate further than normal. Use proper amount of dough for pan size.

## EXCESS SHREDDING / CAPPING



## POSSIBLE CAUSES

### Dough Too Stiff

Prevents proper expansion, resulting in loaf breaking at the seam (the weakest point). Follow formula water level.

### Young Dough

A tight cell structure has a tendency to shred. Allow for proper fermentation time.

### Underproofing

Proper volume has not been achieved, causing quick rise in oven. Check oven temperature.

### Improper Panning

Dough must be placed in pan seam-side-down.

## POORLY SHAPED LOAF



## POSSIBLE CAUSES

### Improper Moulding

Set moulder properly to expel most of the gas.

### Improper Panning

Dough must be placed in pan seam-side-down.

### Rough Handling

Cell structure will collapse and not fully recover. Handle with care.

### Overscaling

Scale proper dough weight for size of pan used.

### Overproofing

Product collapses when overproofed. Check proofing time.

## FLAT TOP / SHARP CORNERS



## POSSIBLE CAUSES

### Overmixing

Overmixing weakens the dough, causing poor gas retention. Mix to proper dough development.

### Very Soft Dough

Causes poor gas retention. Follow formula water level.

### Proofer Humidity Too High

Too much steam will make dough flow, causing lack of gas retention. Adjust to proper humidity.

### Young Dough

Dough will not retain all gas produced. Allow for proper fermentation time.

## LOAF BURSTS ON THE SIDE



## POSSIBLE CAUSES

### Overmixing

Overmixing weakens the dough, causing poor gas retention. Mix to proper dough development.

### Improper Moulding

Set moulder properly to expel most of the gas.

### Underproofing

Proper volume has not been achieved, causing quick rise in oven. Allow for proper proofing time.

### Oven Too Hot

Premature crust formation can cause loaf to burst. Check oven temperature.

# Bread Troubleshooting Guide

## CRUST TOO DARK



## POSSIBLE CAUSES

### Oven Too Hot

Follow proper oven temperature.

### Overbaking

Check oven temperature and baking time.

### Too Much Sugar

Minimize sugar in formula.

## CRUST TOO PALE



## POSSIBLE CAUSES

### Old Dough

Sugars are consumed by yeast, resulting in almost no browning. Follow proper fermentation time.

### Cool Oven

Prevents proper browning. Check oven temperature.

### Underbaking

Check oven temperature and baking time.

## BREAD CAVES IN



## POSSIBLE CAUSES

### Underbaking

Check oven temperature and baking time.

### Pans Too Close Together

Space pans properly.

### Pans Greased Too Heavily

Use grease sparingly.

### Old Dough

Follow proper fermentation time.

### Overproofing

Product collapses when overproofed. Check proofing time.

## IRREGULAR SLICES



## POSSIBLE CAUSES

### Underbaking

Check oven temperature and baking time.

### Bread Too Warm for Slicing

Internal temperature of loaf should reach 95°F/35°C or less.

### Slicer Blades Dull/Guides Not Set Properly

Check and maintain equipment for proper use.

## BLISTERS ON CRUST



## POSSIBLE CAUSES

### Young Dough

Dough won't retain all gas produced. Some escaping gas gets trapped at surface, forming blisters. Allow for proper fermentation time.

### Improper Mixing

Overmixing weakens the dough and undermixing underdevelops the dough; each causes poor gas retention. Mix to proper dough development.

### Proofer Humidity Too High

A tough crust is formed while baking, creating small holes underneath the crust.

### Rough Handling at/in Oven

Product will fall and not fully recover. Handle with care.

### Improper Moulding

Set moulder properly to expel most of the gas.

### Very Soft Dough

Causes poor gas retention. Follow formula water level.

## MOLDY BREAD



## POSSIBLE CAUSES

### **Bread Wrapped Too Hot**

Causes condensation to form. Internal temperature of loaf should reach 95°F/35°C, which usually takes 2-3 hours at room temperature.

### **Product Contact with Unsanitary Equipment**

Clean areas in contact with finished product and wash down with food grade sanitizer.

### **Contaminated Wrappers**

Keep unused packaging stored in a sealed, clean environment.

### **Racks/Tools Contaminated with Mold**

Clean contaminated areas and wash down with food grade sanitizer.

### **Bread Exposed to Dust**

Keep work and display environments clean.

## POOR FLAVOR

## POSSIBLE CAUSES

### **Old Dough**

Causes acids to be produced, changing the flavor. Follow proper fermentation time.

### **Improper Mixing**

An undermixed dough has a raw dough flavor. Follow proper mixing directions.

### **Underbaking**

Proper crust formation will not occur, resulting in a raw dough of yeasty flavor. Check oven temperature and baking time.

### **Improper Storage of Flour**

Store flour away from highly odorous products such as soap or solvents.

### **Overproofing**

Causes excessive acid development. Check proofing time.

### **Product Contact with Unsanitary Equipment**

Clean areas in contact with finished product and wash down with food grade sanitizer.

### **Careless Lubricating of Equipment**

Maintain equipment with cleanliness and precision.

### **Baked Products Stale**

Know the shelf life of the finished product.

### **Baked Products Moldy**

Dispose of product and sanitize preparation and display areas with food grade sanitizer.

## POOR KEEPING QUALITIES

## POSSIBLE CAUSES

### **Old Dough**

Open grain allows moisture to escape. Follow proper fermentation time.

### **Improper Mixing**

A properly developed dough contributes to good cell structure, which retains moisture. Follow proper mixing directions.

### **High Dough Temperature**

Temperature should be between 75°-82°F/24°-28°C to reduce staling.

### **Underscaling**

Causes grain to open, resulting in increased moisture loss. Use proper amount of dough for pan size.

### **Improper Amount of Shortening**

Check recipe for proper amount.

### **Proofer Too Hot**

Causes product to develop a coarse texture. Check proofer temperature.

### **Cool Oven**

Slows down crust formation, resulting in high moisture loss. Check oven temperature.

### **Overbaking**

Creates excessive moisture loss. Check oven temperature and baking time.

### **Bread Wrapped Too Hot/Cool**

If wrapped too hot, condensation forms; if too cool, bread will begin to stale. Internal temperature of loaf should reach 95°F/35°C, which usually takes 2-3 hours at room temperature.

**Get more tips at [www.ardentmills.ca](http://www.ardentmills.ca)**

*Still having problems?* Call our Technical Service team at **1-800-361-6259**