Milling Solutions
Specialist in Milling Technology

Amesi offers a wide range of technology & solutions that give Flour Millers freedom to consistently produce the right end products, at the right time and at the right quality.

Our main objective in the milling industry is to offer the miller a total solution and peace of mind.

We have a dedicated team of Scientist & Technologist who visits our customers every day to help them overcome complex challenges during processing.

Our wide range of solutions focus
- Flour Correctors
- Improvers
- Enzymes
- Oxidising Agents
- Reducing Agents
- Raising Agents
- Vitamin & Mineral Premixes
- Special Flour (Self Raising Flour, Magwinya (Vetkoek) Flour, Pizza Flour, etc.)
- We also partner with millers in developing full mixes range (Pastry Mixes, Bread Mixes, etc.)

Flour Improvers / Correctors

Our Improvers...

The quality of flour is not always optimal and consistent, which is why the addition of one of our top improvers has numerous benefits in bread making.

Improvers are like medicine, too little or too much can have a negative effect. It is thus vital to use the improver at the correct dosage. Our Amesi Gold Mix improver range is trialed and tested on various bread types in Africa.

Our Correctors...

Our Pistol Strong Flour Corrector and Pistol Weak Flour Corrector solutions are the best sellers in our range and is very highly recommended by Flour Millers.

Pistol Strong Flour
This flour corrector range is designed to bake the perfect toast bread. The solution is developed to improve bakers’ flour with lower protein quality, higher starch damage and low enzyme activity.

It consists of a combination of dough conditioners, oxidising agents, emulsifiers and preservatives.

Benefits:
- Increase bread Volume
- Consistent product quality
- Fine Crumb structure
- Longer shelf-life
- Rich Crust Colour
- Also help with correcting Falling Numbers

Pistol Weak Flour
This flour corrector range is designed with excellent hydration potential of the flour to create the perfect Doughnut, Magwinya (VetKoek) and other products.

It is also a perfect solution for products that needs to be extendable rather than elastic to create the perfect flat bread product. Many millers use this in Pizza and Tortilla Wraps.

Benefits:
- Minimize oil absorption during frying
- Improves dough yield
- Increase extendibility
- Improves colour
- Increase shelf life
- Improves machine-ability of the dough

Vitamin & Mineral Premixes

We specialize in custom-made vitamin and mineral premixes according to your product and country’s legislation requirements and can assist with the fortification of products other than flour as well.

Food fortification and enrichment is becoming predominant in most African countries and is mandatory in some products, specifically food vehicles.

Our Nutrivit range is distinctly designed for fortification of wheat, maize & other grain based flour products.

Amesi has many other solutions that performs different functions in improving and correcting the flours
Enzymes

Our range of enzymes are sourced only from top manufacturers to be used as processing aids that enable bakers and millers to produce a better baked product.

Our technical expertise team can advise on the best product and dosage to use, depending on processing parameters and ideal outcome.

- **Baking Powder**
  A chemical leavening agent made from bicarbonate and a weak acid. Used in applications where fermentation flavours are undesirable or where the batter lacks the strength to hold the gas bubbles inside for more than a few minutes.

- **Sodium Bicarbonate**
  A chemical leavening agent much stronger than baking powder. Note that an acid needs to be in the recipe to react with the sodium bicarbonate (alkali) to release CO².
  Used in applications where fermentation flavours are undesirable or where the batter lacks the strength to hold the gas bubbles inside for more than a few minutes.

Raising Agents

Our range of raising agents are carefully formulated to ensure optimum performance during baking. We offer Sodium Bicarbonate, Single & Double Action Baking Powders.

Our scientist and technologist work along with Flour Millers in developing perfect self-raising flours.

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Oxidants & Reducing Agents

Amesi provides chemicals used to mature flour or doughs resulting in improved loaf volume, crumb texture and grain in finished baked product (Oxidising Agents), such as Ascorbic Acid, Potassium Bromate, ADA, etc.

A reducing agent is an ingredient that adds hydrogen to disulfide bonds in flour proteins, resulting in a more extendable, pliable dough (*when not used in excess*). Examples include L-cysteine, Glutathione, Sodium Bisulfite and Sorbic Acid.

- **Ascorbic Acid**
  An excellent oxidizing-agent used to strengthen linkages of starch and gluten in the dough.
  Various mesh sizes available.

- **L-Cysteine**
  A naturally occurring amino acid that contains sulfur in addition to the usual constituents-carbon, hydrogen, nitrogen and oxygen.
  It is used as a reducing agent to modify the physical properties of doughs. Normal usage is 20 to 60 parts per million, based on flour.

Other oxidant-reducing agents are available upon request.

- **Alpha Amylase**
  Alpha Amylase is an enzyme that targets the breakdown of starch to yield dextrin and fermentable sugars (glucose) for carbon dioxide production.

- **Glucose Oxidase**
  Glucose Oxidase is an enzyme that works well with Ascorbic Acid by modifying the gluten protein to form linkages, thus strengthening the dough.

- **Hemicellulase / Xylanase**
  Hemicellulase is an enzyme that breaks down the insoluble fibre in flour & releases bound water into the dough.

- **Lipase**
  An enzyme that breaks down lipid (fat) molecules inside the flour. Ensures dough are dry and fluffy.

- **Maltogenic Amylase**
  Maltogenic amylase is an enzyme that retards the retrogradation of starch.

- **Protease**
  Protease is an enzyme that breaks down peptide bonds by proteolysis, thus reducing the strength of the flour protein.