

# RANDOX

FOOD DIAGNOSTICS

## RX misano for Honey Analysis



🔍 Radox Honey

## Why choose RX misano?

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Honey naturally contains a small amount of enzymes, which can vary widely by floral source and region. These enzymes play an important role by contributing to functional properties of honey, making it a unique ingredient that is far more complex than other sweeteners.

According to the EU Honey Directive 2001/110/EC, certain composition criteria must be determined for honeys intended for human consumption. In order to achieve this, the most modern enzymatic analyser in the industry, the RX misano, is now available for the analysis of diastase and total sugars (glucose/ fructose).

Designed with the user in mind, the RX misano incorporates a responsive touch screen display, test menu personalisation and the ability to upload new parameters via USB. With an increase in automatic features, the RX misano also guarantees the precision and accuracy of results, improving the overall efficiency and versatility of enzymatic honey analysis.



## Benefits at a Glance

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### User friendly

7" responsive touch screen display, favourites menu, on screen prompts, the ability to export data into excel and import new menus.



### Semi-automated

With the ability to automatically calculate results, the RX misano leaves less chance for human error.



### Customisable test menus

As the RX misano for honey test menu continues to grow, users can simply upload new parameters to the machine via USB.



### Accurate

Results are quantitative and produced within +/- 1% of UKAS accredited reference materials, boasting increased accuracy compared to alternative methods.



### Reduced foot print

With a smaller footprint than standard spectrophotometers, the RX misano is suitable for laboratories of all sizes.



### Excellent thermal performance

The RX misano heats to 37°C in less than 30 seconds and cools from 37°C to 25°C in less than 1 minute.

## Glucose/Fructose Analysis

The carbohydrate composition of honey is responsible for some of its key functional properties. The ability to hold moisture and extend shelf-life, its microwave reactivity and its ability to promote colour and flavour development are all related to its carbohydrate composition. The composition of glucose/fructose ratios are parameters which are also used to help predict the tendency of honey to crystallise.

Individual analysis of sugars can show valuable information about source and floral origin. Randox offer a simple and fast method for the determination of glucose/fructose content in honey.

### Assay Protocol



### Calculation of Result

Fructose content = Total sugars – Glucose content (Work out second value as a percentage of total value)

Results are calculated in g/100g.

Optimum glucose/fructose content is > 70% of total honey constituents

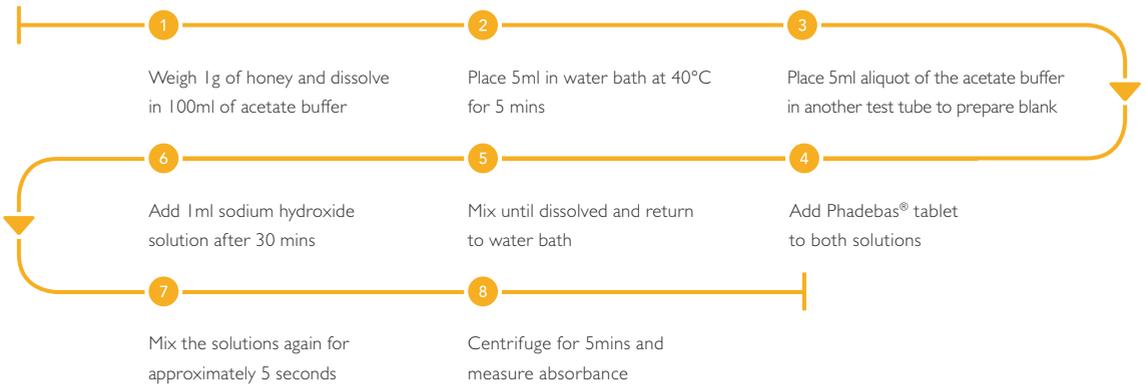
Product	Time to result
Glucose	6 minutes
Fructose	22 minutes
Total Sugars	16 minutes

## Phadebas® Honey Diastase Test

Diastase in honey converts starch to short-chain sugars and the enzyme activity hints at heating and/ or poor storage conditions. Heating the honey degrades the enzyme, which is why restrictions are enforced by the EU. One official method of determining the Diastase Number (DN) in honey is the Phadebas® assay, as recommended by the International Honey Council.

Phadebas® Honey Diastase Test is a method for the quantitative analysis of  $\alpha$ -amylase in all honey types.

### Assay Protocol



### Calculation of Results

The absorbance of the blank is subtracted from that of the sample solution ( $\Delta A_{620}$ ). If the absorbance is higher than 1.0, dilute the sample with water.

The codex quotes the following: The diastase activity of honey, determined after processing and/or blending, in general not less than 8 Schade units and in the case of honeys with low natural enzyme content not less than 3 Schade Units.

Product	Time to result
Diastase	40 minutes

## Benefits of Kits

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- ✓ Ability to run batches of 10 samples in less than 1 hour (with added incubator)
- ✓ Increased number of tests - 157 tests per glucose/fructose kit
- ✓ Individual results available for glucose and fructose - 78 tests per kit
- ✓ Simple sample preparation
- ✓ Phadebas® - Gold standard method reported in Schade units
- ✓ Hydroxymethylfurfural (HMF) and Sucrose coming 2016-2017

## How To Order

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### Starter Package

Product	Cat. No.
RX misano	RX6017
Incubator (6 samples per run)	M701484
Cuvettes (pack of 500 - single use)	FD8346
5-50µl Pipette	RFD8314
20-200µl Pipette	RFD8315
200-1000µl Pipette	RFD8316
On-site Training	N/A
1 Free Kit	N/A

### Kits

Product	Product Type	Cat. No.
Glucose / Fructose (157 tests)	Reagent	GF2635
Phadebas® Honey Diastase Test (50 tablets)	Reagent	1321
Phadebas® Honey Diastase Test (5x100 tablets)	Reagent	1322

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**500+**

laboratories using Radox  
Food Diagnostics technology

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