

NIRFlex N-500 Calibration for Semolina



Calibration is a question of experience. The Büchi pre-calibrated applications relieve you completely from that task. On the other hand you are not limited. The major Büchi advantage: you can use our pre-calibrations or you can calculate your own with NIRCal 5.0.

Uses

Fast and accurate simultaneous analysis of several parameters on semolina using Büchi NIR-Technology. Rapid availability of defined quality criteria is vital for efficient production and quality control. Loss of production is avoided and high reproducibility from charge to charge guaranteed.

Reference methods

All the reference chemistry is performed with official methods; e.g. heating oven for solids, Soxhlet for fat, Kjeldahl for Protein...

Requirements for this application are:

- the Büchi NIRFlex N-500
- the Measurement Cell Solids with Petri Dish add-on
- the appropriate computer hardware and Büchi NIRWare

Parameters

A «robust» calibration is guaranteed because more than 200 different samples were analyzed. The following parameters are measured:

- Protein	8.2 – 16.6 %
- Moisture	13.2 – 15.9 %
- Dry Gluten	6.9 – 16.4 %
- Ash	0.60 – 0.96 %

Basis of calculation

The Büchi Chemometric software NIRCal® is used in the NIRFlex N-500 parameter predictions. NIRCal® is a proven and tested software tool with comprehensive calculating possibilities.

Calibration of properties in semolina by NIRFlex N-500

Parameter	No. of samples for calibrations	Calibration range [%]	SEP	R-Coefficient
Protein	171	8.2 – 16.6	0.28	0.982
Moisture	154	13.2 – 15.9	0.18	0.947
Dry Gluten	263	6.9 – 16.4	0.44	0.959
Ash	263	0.60 – 0.96	0.028	0.961

Reliable

An accurate robust calibration has been established over a wide and comprehensive calibration range using samples from many different sources.

Precise

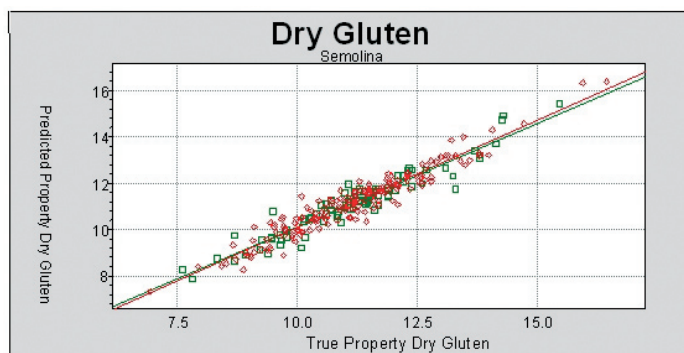
The precision of a calibration is judged by the standard error of the prediction (SEP) and the regression coefficient of the calibration fit. A regression coefficient close to 1 is optimal for the precise prediction of new samples.

Flexible

The semolina application for the NIRFlex N-500 is ready-to-use. It allows results to be generated from Day One. With the necessary experience in Chemometrics, the user can adjust the calibration to a different sample matrix – alone or with our support.

Required hardware:

- Büchi NIRFlex N-500
- Measurement Cell Solids with Petri Dish add-on
- PC-installed Büchi software NIRWare



Order No. N555-520

Pre-calibrated semolina application

BÜCHI Labortechnik AG
Postfach
9230 Flawil
Schweiz
Tel. +41 71 394 63 63
Fax +41 71 394 65 65
buchi@buchi.com
www.buchi.com

BÜCHI Labortechnik GmbH
Postfach 10 03 51
45003 Essen
Deutschland
Freecall 0800 414 0414
Tel. +49 201 747 490
Fax +49 201 237 082
deutschland@buchi.com
www.buechigmbh.de

BÜCHI Labortechnik GmbH
Branch Office Netherlands
Postbus 142
3340 AC Hendrik Ido Ambacht
The Netherlands
Tel. +31 78 684 94 29
Fax +31 78 684 94 30
netherlands@buchi.com
www.buchi.nl

BÜCHI Italia s.r.l.
Centro Direzionale, Milano Fiori
Pal. A-4, Strada 4
20090 Assago (MI)
Italia
Tel. +39 02 824 50 11
Fax +39 02 57 51 28 55
italia@buchi.com
www.buchi.it

BUCHI (THAILAND) Ltd.
ASEAN Competence Center
300 Phaholyothin Road
Samsennai, Phayathai
Bangkok 10400
Thailand
Tel. +66 2 278 54 95
Fax +66 2 279 05 48
bacc@buchi.com
www.buchi.com

We are represented by more than 100 distribution partners worldwide. Find your local representative at

www.buchi.com

BUCHI Analytical Inc.
19 Lukens Drive
New Castle
Delaware 19720
USA
Tel. +1 302 652 3000
Fax +1 302 652 8777
us-sales@buchi.com
www.buchi-analytical.com

BUCHI Hong Kong Ltd.
1305, Hang Seng Mongkok Bldg.
677 Nathan Road
Kowloon, Hong Kong
China
Tel. +852 2389 2772
Fax +852 2389 2774
china@buchi.com
www.buchi.com

Nihon BUCHI K.K.
7F Kojima Bldg. 2-11-10 Ueno
Taito-ku
Tokyo 110-0005
Japan
Tel. +81 3 5807 5599
Fax +81 3 5807 5598
nihon@buchi.com
www.nihon-buchi.co.jp

BUCHI Sarl
5, rue du Pont des Halles
Z.A. du Delta
94656 Rungis Cedex
France
Tél. +33 1 56 70 62 50
Fax +33 1 46 86 00 31
france@buchi.com
www.buchi.fr

BUCHI SMP
Services Private Ltd.
201, Magnum Opus
Shantinagar Industrial Area
Vakola, Santacruz (East)
Mumbai 400 055,
India
Tel. +91 22 56 98 94 50
Fax +91 22 56 98 94 52
smplisp@vsnl.com
www.buchi.com

Quality in your hands