

RAW STARCH DETERMINATION

Hydrochloric acid principle acc. to Ewers (analog to DIN 10 300 Bl.1)

Short description:

Standard operation for the determination of raw starch in potatoes, corn and similar products.

The sample material is dissolved and cooked in hot hydrochloric acid and after precipitation of surrounding substances and clarification the optical rotation is measured. From the optical rotation at 589nm the content of raw starch is calculated.

Depending on the sample type and assumed starch type the acid concentration and cooking time will be different.

The calculation is made according to the following formula:

$$\text{Content of raw starch in g/100g DS} = \frac{\alpha}{[\alpha]_D * l * E * (100-u)} * 10^6$$

with:

- α = measured rotation in degree angular
- $[\alpha]_D$ = specific rotation of starch at 589nm
- l = sample tube length in dm
- E = sample weight in g
- u = humidity of the sample in %

Recommended Instrument: Polartronic NH8 / MH8

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