



Thermo SCIENTIFIC

Karl Fischer Titrator

Log # KF1142

Overview The moisture in starch foam was determined by Karl Fischer titration on the Orion Turbo2 Blending Volumetric Titrator equipped with a high speed blender. Methanol-formamide mixture was used as the solvent.

Sample STARCH FOAM

Industry FOOD AND BEVERAGE

Typical moisture 6%

Sample size 0.5g

Summary of analytical procedure Fill the vessel with 300 mL of solvent mixture. Calibrate with 25uL of DI water. Start titration in Bgrd-Samp-Bgrd mode.

Fill the weighing boat with approximately 1 g of sample, weigh accurately and enter total weight when display requests. Add about 0.5 g of sample to the titration vessel. Reweigh the boat and enter as holder weight.

Method Parameters

Instrument	Turbo 2 Volumetric Karl Fischer	Stirrer/blender speed	3
Volumetric Reagent	HYDRANAL®-Composite 5 RDH 34805*	Extract time	4min**
Volumetric Solvent	3:1 Methanol:Formamide (Karl Fischer grade)	Mode of analysis	BKGD-SAMP-BKGD
Endpt/Step Level	8/ +5	Vaporizer oven	
Endpt Time	10sec	Result units	% wt/wt

Results

# of Trials	3	Mean Value	5.8%	C.V.	0.92%
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Comments *Or use AquaStar* Composite 5 from Fisher (MAX1698A-6). **Extract time depends on starch properties; it can be reduced if the titration is carried out at 50°C. Use the Turbo2 Water-Jacketed Vessel to perform calibration and analysis at 50°C.

Cross-reference log # KF1579