



# MB SERIES

*Moisture Analyzers Guide*

## ***A Guide to Moisture Content Analysis***



### ***Ingenuously Practical***

# Sample Methods

Method Code	Sample Name	Sample Size	Prep. Method	Heating Profile	Glass Fiber Pads	Shut-off Criteria	Reference Time with MB120	Reference Time with MB62	% MC
<b>Dry Food Ingredients</b>									
ZZ1001	Flour	3 g	as is, well mixed	fast, 105°C		A60	5 min	4:30 min	13.10
ZZ1002	Corn meal	3 g	as is, well mixed	fast, 120°C		A60	4:30 min	4 min	10.45
ZZ1003	Corn starch	3-5 g	as is, well mixed	standard, 123°C		A60	8 min	7 min	12.60
ZZ1004	Breadcrumbs	4 g	as is, well mixed	standard, 135°C		A60	10 min	9 min	7.71
ZZ1005	Cocoa powder	3 g	as is, well mixed	standard, 140°C		A60	4:30 min	4 min	5.45
ZZ1006	Powdered milk	3g	as is, well mixed	fast, 100°C		A60	5 min	4:30 min	5.68
ZZ1007	Instant coffee	3 g	as is, well mixed	standard, 154°C		A30	2:30 min	2:30 min	2.56
ZZ1008	Black tea	4 g	as is, well mixed	standard, 125°C		A60	10 min	9 min	5.95
ZZ1009	Pepper powder	2 g	as is, well mixed	standard, 110°C		A30	4:30 min	4 min	9.86
ZZ1010	Almonds	3-5 g	grind, 30 sec	standard, 130°C		A60	8 min	7 min	5.73
ZZ1011	Cracked corn 2	4 g	grind, 30 sec	fast, 150°C		Timed	3:30 min	3 min	14.60
ZZ1012	Rice (Grains)	5 g	grind, 30 sec	standard, 150°C		A60	15 min	12 min	11.34
ZZ1013	Green tea	2.5 g	cut into small piece	standard, 125°C		A60	5 min	4:30 min	7.01
<b>Finished Baked/Fried Foods</b>									
ZZ2001	Cake	3 g	uniform mix of crumb	step, 140°C 3 min, 110°C 4 min		A30	8 min	7 min	19.04
ZZ2002	Cracker	3 g	grind uniform crumb	fast, 76°C		A60	4:30 min	4 min	1.42
ZZ2003	Potato chip	3 g	small pieces	standard, 150°C		A30	3 min	2:30 min	1.83
ZZ2004	Roasted peanuts	3 g	grind, 15 sec.	standard, 128°C		Timed	5 min	4:30 min	2.24
<b>Animal Feed/Grains</b>									
ZZ4001	Pelleted pet food	5 g	grind, 30 sec.	fast, 121°C		Timed	4 min	3:30 min	8.43
ZZ4002	Cracked corn	5 g	grind, 30 sec.	fast, 158°C		Timed	4 min	3:30 min	16.44
ZZ4003	Rye seed	5 g	grind, 45 sec.	fast, 140°C		Timed	4 min	3:30 min	10.51
ZZ4004	White sesame	5 g	as is	fast, 135°C		A60	5 min	4:30 min	3.71
ZZ4005	Corn flake	3 g	grind, 30 sec.	standard, 140°C		A60	9 min	7:30 min	11.45
<b>Personal Care</b>									
ZZ5001	Liquid hand soap	1 g	spread thin on pad	step, 190°C 3 min, 130°C 1 min	●	A30	6 min	5 min	83.57
ZZ5002	Soap	2 g	shaved thin into dish	standard, 160°C		A30	4:30 min	4 min	20.83
ZZ5003	Toothpaste	1 g	spread thin on pad	fast, 125°C	●	A30	4 min	3:30 min	37.43
ZZ5004	Skin cream	1 g	spread thin on pad	step, 190°C 3 min, 145°C 8 min, 145°C	●	A30	12 min	10 min	87.11
ZZ5005	Stick deodorant	2 g	shaved thin into dish	standard, 190°C		A30	14 min	12 min	92.40
ZZ5006	Powdered detergent	3 g	as is	standard, 110°C		A30	3 min	2:30 min	3.27
<b>Misc.</b>									
ZZ6001	Latex paint	1 g	sandwich between pads	fast, 170°C,	●	A60	4:30 min	4 min	44.91
ZZ6002	Wood glue	1 g	spread thin on pad	standard, 160°C	●	A30	12 min	10 min	68.51
ZZ6003	Sodium tartrate	3 g	well mixed	standard, 150°C		A60	5:30 min	5 min	15.35

## Applications Table – Sample Methods for OHAUS MB series Moisture Analyzer

A representative mix of samples from across the industry were evaluated for percentage of moisture content. Sample preparation, heating programs, switch-off criteria, and the resulting moisture content (as percentage of MC) are defined. This table may serve as a starting reference while defining working programs for your sample. We recommend that you optimize the program for your specific needs.

Method Code	Sample Name	Sample Size	Prep. Method	Heating Profile	Glass Fiber Pads	Shut-off Criteria	Reference Time with MB120	Reference Time with MB62	% MC
<b>Misc. Foods</b>									
ZZ3001	Carrot	3 g	shredded	step, 190°C 3 min, 120°C 3 min		A30	30 min	25 min	87.06
ZZ3002	Fruit juice concentrate	3 g	drop on glass pad	step, 185°C 4 min, 145°C	●	A60	15 min	12 min	92.92
ZZ3003	Wet vegetables (spinach)	5 g	small pieces	step, 195°C 7 min, 150°C 1 min, 105°C		A30	30 min	25 min	93.74
ZZ3004	Dehydrated vegetables	2 g	as is	fast, 125°C		A30	4 min	3:30 min	7.98
ZZ3005	Dried herbs	1 g	small pieces	standard, 160°C		A30	2:30 min	2:30 min	10.20
ZZ3006	Snack pudding	2 g	sandwich between pads	step, 180°C 3 min, 120°C 3 min		A30	15 min	12 min	78.08
ZZ3007	Creamy salad dressing	3 g	spread on glass pad	step, 190°C 3 min, 120°C 7 min		Timed	10 min	9 min	23.23
ZZ3008	Lowfat salad dressing	2 g	sandwich between pads	fast, 170°C	●	1mg/40s	9:30 min	8 min	49.66
ZZ3009	Butter	3 g	spread on glass pad	step, 180°C 2 min, 130°C	●	A60	14:30 min	12 min	14.81
ZZ3010	Processed cheese	3 g	sandwich between pads	step, 180°C 7 min, 170°C	●	A30	20 min	18 min	57.00
ZZ3011	Ketchup	1 g	sandwich between pads	step, 180°C 10 min, 120°C 2 min	●	A60	14 min	12 min	70.34
ZZ3012	Salt	10 g	as is	standard, 200°C		Timed	4 min	3:30 min	0.05
ZZ3013	Powdered rock candy	5 g	as is	standard, 145°C		A60	1:30 min	1:30 min	0.07
ZZ3014	Brown powdered sugar	5 g	mix with sand	standard, 135°C		A60	15:30 min	12 min	6.15
ZZ3015	Coconut milk	2 g	drop on glass pad	fast, 130°C	●	A60	5 min	4:30 min	90.50
ZZ3016	Chocolate milk	2 g	drop on glass pad	fast, 120°C	●	A30	5 min	4:30 min	82.58
ZZ3017	Bean paste	3 g	spread on glass pad	fast, 145°C	●	A30	20 min	18 min	61.30
ZZ3018	Mustard	2-5 g	spread on glass pad	fast, 135°C	●	A30	6 min	5 min	31.51
ZZ3019	Yeast	2 g	as is	standard, 97°C		A60	4 min	3:30 min	4.32
ZZ3020	Spaghetti	3 g	small pieces	fast, 145°C		A60	9 min	7:30 min	11.12
ZZ3021	Pork or Beef	2-3 g	remove fat; muddy flesh on glass pad	fast, 145°C	●	A30	15 min	12 min	75.50
ZZ3022	Apple juice (Clear fluid)	2 g	spread on glass pad	fast, 130°C	●	A60	5 min	4:30 min	88.86



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## ***OHAUS Corporation***

Headquartered in Parsippany, NJ, OHAUS Corporation manufactures an extensive line of weighing scales, lab equipment and lab instruments that meet the weighing, sample processing and measurement needs of multiple industries. We are a global leader in the laboratory, industrial and education markets, as well as a host of specialty markets, including the food preparation, pharmacy and jewelry industries. An ISO 9001:2015 manufacturer, OHAUS lab balances, industrial scales, lab equipment and lab instruments are precise, reliable and affordable, and backed by industry-leading customer support.

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