

# M-204



*M-204 is an early maturing medium grain released in 1991. It has shown improved milling yield potential. Its pedigree is: M-201/M7/3/M7//ESD7-3/Kokuhorose.*

**U.S. MARKET TYPE:**  
**MEDIUM GRAIN**

2000      2001      2002

**Grain Dimensions (Paddy)**

Average Length (mm) . . . . .	8.41	8.38	8.71
Average Width (mm) . . . . .	3.01	3.07	3.21
L/W Ratio . . . . .	2.8	2.7	2.7

**Grain Dimensions (Brown)**

Average Length (mm) . . . . .	6.22	6.16	6.17
Average Width (mm) . . . . .	2.80	2.74	2.80
L/W Ratio . . . . .	2.2	2.2	2.2
1000 Grain Weight (g) . . . . .	25.1	24.2	24.2

**Grain Dimensions (Milled)**

Average Length (mm) . . . . .	5.91	5.78	5.89
Average Width (mm) . . . . .	2.73	2.67	2.70
L/W Ratio . . . . .	2.2	2.2	2.2
Apparent Amylose (%) . . . . .	18.8	18.0	18.0

**Protein (%)**

Brown . . . . .	7.2	8.2	6.2
Milled . . . . .	7.0	6.9	5.8

Alkali Spreading Value (1.5% KOH) . . . . . 6.5 . . . . . 6.0 . . . . . 6.0

Alkali Spreading Value (1.7% KOH) . . . . . 7.0 . . . . . 7.0 . . . . . 6.2

Cooking Time (min) . . . . . 16.7 . . . . . 19.3 . . . . . 20.0

**Differential Scanning Calorimetry**

Gelatinization Temperature (°C) . . . . . 65.2 . . . . . 68.0 . . . . . 67.6

**QUALITY TYPE:**  
**CALROSE**

2000      2001      2002

**Rapid Visco Analyzer**

*AACC Method:*

Peak . . . . .	242	272	262
Hot Paste . . . . .	143	152	151
Cool Paste . . . . .	251	262	263
Setback . . . . .	9	-10	1
Consistency . . . . .	96	110	112
Breakdown . . . . .	111	120	111
Pasting Temperature (°C) . . . . .	70.7	73.3	72.0

*Japanese Method:*

Peak . . . . .	276	313	270
Hot Paste . . . . .	135	135	124
Cool Paste . . . . .	252	253	242
Setback . . . . .	-24	-60	-28
Consistency . . . . .	117	118	118
Breakdown . . . . .	141	178	146
Pasting Temperature (°C) . . . . .	70.7	72.9	72.6

**Controlled Stress Rheometer (Pa.s)**

Peak . . . . .	0.48	0.67	0.46
Hot Paste . . . . .	0.29	0.36	0.27
Cool Paste . . . . .	0.59	0.76	0.58
Setback . . . . .	0.10	0.09	0.12
Consistency . . . . .	0.30	0.40	0.31
Breakdown . . . . .	0.19	0.31	0.19
Pasting Temperature (°C) . . . . .	67.2	67.2	67.7



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