Mad Grodzisz

- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **31**
- SRM **2.8**
- Style **Grodziskie**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **50 C**, Time **15 min**
- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **54.3C**
- Add grains
- Keep mash **15 min** at **50C**
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Grodziski	2 kg *(50%)*	80 %	4
Grain	Grodziski pszeniczny wędzony olchą	1 kg *(25%)*	80 %	3
Grain	Grodziski pszeniczny wędzony dębem	1 kg *(25%)*	80 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	13.5 %
Boil	Saaz (Czech Republic)	15 g	20 min	3 %
Boil	Tomyski	15 g	20 min	4 %
Boil	Saaz (Czech Republic)	25 g	0 min	3 %
Boil	Tomyski	25 g	0 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Wheat	Slant	100 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Other	Łuska ryżowa	200 g	Mash	60 min
Water Agent	CaCl2	5 g	Mash	60 min
Water Agent	Lactic Acid	5 g	Mash	60 min
Fining	Whirlfloc-T	2.5 g	Boil	10 min