

## Grodziskie #2

- Gravity **7.8 BLG**
- ABV **3 %**
- IBU **25**
- SRM **2.7**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **23.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.5 liter(s)**

### Mash information

- Mash efficiency **80.5 %**
- Liquor-to-grist ratio **5.1 liter(s) / kg**
- Mash size **16.3 liter(s)**
- Total mash volume **19.5 liter(s)**

### Steps

- Temp **39 C**, Time **30 min**
- Temp **51 C**, Time **45 min**
- Temp **63 C**, Time **20 min**
- Temp **71 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.3 liter(s)** of strike water to **40.9C**
- Add grains
- Keep mash **30 min** at **39C**
- Keep mash **45 min** at **51C**
- Keep mash **20 min** at **63C**
- Keep mash **20 min** at **71C**
- Keep mash **10 min** at **78C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **28.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Bruntal Grodziski Wersja 2	3.2 kg (100%)	80 %	4.5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum PL 2023	15 g	60 min	11 %
Boil	Tomyski PL 2023	5 g	60 min	4.9 %
Aroma (end of boil)	Tomyski PL 2023	25 g	5 min	4.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Ale	Liquid	40 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
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Other	Łuska Ryżowa	250 g	Mash	---
Fining	Whirlfloc T	0.5 g	Boil	10 min
Użyto pół tabletki Whirlfloc T.				

## Notes

- Temperatura nastawna - 15 stopni Celsjusza.  
*Aug 15, 2024, 12:20 AM*