

## #083 Grodziskie

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- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **25**
- SRM **2.7**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **17 %/h**
- Boil size **31.2 liter(s)**

### Mash information

- Mash efficiency **63 %**
- Liquor-to-grist ratio **4.1 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **23.5 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **18.9 liter(s)** of strike water to **72.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **31.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	4.6 kg (100%)	80 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tomyski	45 g	60 min	3.9 %
Boil	Tomyski	35 g	10 min	3.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Other	łuska ryżowa	285 g	Mash	60 min