

## Grodzisz #3

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- Gravity **7.8 BLG**
- ABV **3 %**
- IBU **20**
- SRM **2.4**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **1 %**
- Size with trub loss **29.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **35.1 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **15.2 liter(s)**

### Steps

- Temp **40 C**, Time **30 min**
- Temp **52 C**, Time **40 min**
- Temp **70 C**, Time **30 min**
- Temp **77 C**, Time **10 min**

### Mash step by step

- Heat up **11.4 liter(s)** of strike water to **43.3C**
- Add grains
- Keep mash **30 min** at **40C**
- Keep mash **40 min** at **52C**
- Keep mash **30 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **27.5 liter(s)** of **76C** water or to achieve **35.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Smoked Malt	2.8 kg (73.7%)	80 %	4
Grain	Barley, Torrefied	1 kg (26.3%)	79 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tomyski	30 g	60 min	4 %
Boil	Tomyski	30 g	15 min	4 %
Boil	Tomyski	40 g	5 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	whirlflock	0.5 g	Boil	10 min