

## Grodzisz #2

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- Gravity **7.3 BLG**
- ABV **2.8 %**
- IBU **33**
- SRM **4.5**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **1 %**
- Size with trub loss **31.2 liter(s)**
- Boil time **45 min**
- Evaporation rate **8 %/h**
- Boil size **36.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **77 C**, Time **10 min**

### Mash step by step

- Heat up **13.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **27.3 liter(s)** of **76C** water or to achieve **36.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Smoked Malt	1.5 kg (33.3%)	80 %	18
Grain	Weyermann - Smoked Malt	1.5 kg (33.3%)	81 %	6
Grain	Rye Malt	1 kg (22.2%)	63 %	10
Grain	Viking Pilsner malt	0.5 kg (11.1%)	82 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Vanguard	15 g	45 min	7.7 %
Boil	Simcoe (US)	15 g	25 min	14.5 %
Aroma (end of boil)	Simcoe (US)	15 g	5 min	14.5 %
Whirlpool	Simcoe (US)	15 g	20 min	14.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP001 - California Ale Yeast	Ale	Slant	200 ml	White Labs