

## #33 Grodziskie

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- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **33**
- SRM **3**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **7 liter(s)**
- Total mash volume **9 liter(s)**

### Steps

- Temp **65 C**, Time **20 min**
- Temp **69 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **7 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **20 min** at **65C**
- Keep mash **40 min** at **69C**
- Keep mash **5 min** at **78C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Grodziski	1.5 kg (75%)	80 %	4
Grain	Viking Pale Ale malt	0.5 kg (25%)	80 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	5 g	60 min	12.9 %
Boil	Magnum	5 g	30 min	12.9 %
Aroma (end of boil)	Magnum	10 g	5 min	12.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Slant	100 ml	Safbrew