

## #34 Gdanski Grodzisz 3

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **21**
- SRM **4.1**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **60 liter(s)**
- Trub loss **5 %**
- Size with trub loss **63 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **77.6 liter(s)**

### Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **35 liter(s)**
- Total mash volume **45 liter(s)**

### Steps

- Temp **39 C**, Time **50 min**
- Temp **51 C**, Time **20 min**
- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **15 min**

### Mash step by step

- Heat up **35 liter(s)** of strike water to **41.7C**
- Add grains
- Keep mash **50 min** at **39C**
- Keep mash **20 min** at **51C**
- Keep mash **30 min** at **66C**
- Keep mash **15 min** at **72C**
- Sparge using **52.6 liter(s)** of **76C** water or to achieve **77.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	10 kg (100%)	78 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	70 g	60 min	6 %
Aroma (end of boil)	Citra	30 g	15 min	6 %
Dry Hop	Cascade	10 g	5 day(s)	13.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	100 ml	Safbrew

### Extras

Type	Name	Amount	Use for	Time
Finning	karuk	99999 g	Secondary	5 day(s)