

## #4: GRODZIK

- Gravity **8.8 BLG**
- ABV ---
- IBU **22**
- SRM **3**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **21.6 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **10.1 liter(s)**
- Total mash volume **13.2 liter(s)**

### Steps

- Temp **64 C**, Time **35 min**
- Temp **72 C**, Time **35 min**
- Temp **76 C**, Time **15 min**

### Mash step by step

- Heat up **10.1 liter(s)** of strike water to **70.9C**
- Add grains
- Keep mash **35 min** at **64C**
- Keep mash **35 min** at **72C**
- Keep mash **15 min** at **76C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **21.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	2 kg (63.5%)	80 %	3
Grain	Strzegom Pszeniczny	1 kg (31.7%)	81 %	6
Grain	Płatki owsiane	0.15 kg (4.8%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	25 g	60 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	20 g	15 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	15 g	5 min	4 %

### Yeasts

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

### Extras

Type	Name	Amount	Use for	Time
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Fining	Irish Moss	5 g	Boil	10 min
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