

## # 19 Grodzie 2.0

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- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **19**
- SRM ---
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.8 liter(s)**
- Total mash volume **11.3 liter(s)**

### Steps

- Temp **44 C**, Time **15 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **8.8 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **15 min** at **44C**
- Keep mash **30 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **8.9 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pszeniczny wędzony drewnem dębowym - Viking Malt	2.5 kg (100%)	--- %	---

### Hops

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

### Yeasts

Name	Type	Form	Amount	Laboratory
Bulldog B49 Bavarian Wheat	Wheat	Dry	6 g	---