

- Gravity **7.8 BLG**
- ABV ---
- IBU **26**
- SRM **3.1**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

### Steps

- Temp **52 C**, Time **45 min**
- Temp **70 C**, Time **30 min**

### Mash step by step

- Heat up **9 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **45 min** at **52C**
- Keep mash **30 min** at **70C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	3 kg (100%)	80 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	60 min	4 %
Boil	Lublin (Lubelski)	20 g	30 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Wheat	Liquid	100 ml	Fermentum Mobile