

## g

- Gravity **8 BLG**
- ABV ---
- IBU **17**
- SRM **2.5**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

### Steps

- Temp **38 C**, Time **40 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **9 liter(s)** of strike water to **41C**
- Add grains
- Keep mash **40 min** at **38C**
- Keep mash **20 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **20.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

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

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	20 g	60 min	4 %
Boil	Lublin (Lubelski)	30 g	10 min	4 %

### Yeasts

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