

## 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    |