

## Grodzie 2,1

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- Gravity **8 BLG**
- ABV ---
- IBU **20**
- SRM **4.3**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **1 %**
- Size with trub loss **22.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **24.5 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **15 liter(s)**

### Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **24.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	3 kg (100%)	80 %	10

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	20 g	40 min	4 %
Boil	Lublin (Lubelski)	20 g	30 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	5 min	4 %
Whirlpool	Lublin (Lubelski)	30 g	0 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Wheat	Liquid	30 ml	Fermentum Mobile