

## Grodziski exp 3/20

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- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **27**
- SRM **2.3**
- Style **Grodziskie/Graetzer**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- Size with trub loss **20 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

### Steps

- Temp **38 C**, Time **30 min**
- Temp **52 C**, Time **50 min**
- Temp **63 C**, Time **20 min**
- Temp **70 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **40.6C**
- Add grains
- Keep mash **30 min** at **38C**
- Keep mash **50 min** at **52C**
- Keep mash **20 min** at **63C**
- Keep mash **20 min** at **70C**
- Keep mash **1 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **24.2 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	Magnum	10 g	55 min	13.5 %
Whirlpool	Exp 3/20 PolishHops	30 g	20 min	7.5 %
Whirlpool	exp 3/20 PolishHops	30 g	0 min	7.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11 g	Fermentis

### Notes

- 300g łuski ryżowej do filtrowania  
Whirlpool:

30g - C<90  
30g - C<70  
*Jun 20, 2024, 6:29 PM*