

# Grodzii

- Gravity **13.3 BLG**
- ABV ---
- IBU **24**
- SRM **4.4**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **15 liter(s)**

## Steps

- Temp **55 C**, Time **10 min**
- Temp **63 C**, Time **50 min**
- Temp **67 C**, Time **10 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **59.4C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **50 min** at **63C**
- Keep mash **10 min** at **67C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **15.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pszeniczny Bestmalz	1.5 kg (50%)	82 %	5
Grain	Grodziski pszeniczny wędzony dębem	1 kg (33.3%)	80 %	3
Grain	Pilznieński	0.5 kg (16.7%)	81 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (USA)	15 g	60 min	3.75 %
Boil	Saaz (Czech Republic)	10 g	30 min	4.5 %
Aroma (end of boil)	Saaz (Czech Republic)	10 g	10 min	4.5 %
Aroma (end of boil)	Citra	5 g	10 min	12 %
Dry Hop	Citra	5 g	4 day(s)	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Fermentis S-33	Wheat	Dry	11.5 g	---
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