

# Grodziskie

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **11**
- SRM **2.3**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 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 **45 min**
- Temp **63 C**, Time **21 min**
- Temp **72 C**, Time **22 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **9 liter(s)** of strike water to **41C**
- Add grains
- Keep mash **45 min** at **38C**
- Keep mash **21 min** at **63C**
- Keep mash **22 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **24.1 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	Tomyski	20 g	45 min	2.8 %
Aroma (end of boil)	Tomyski	20 g	15 min	2.8 %

## Yeasts

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

## Notes

- Woda:  
Kinga Pienińska niegazowana 21l  
Żywiec Zdrój niegazowany 4.5l  
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