

# Grodziskie

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **24**
- SRM **2.3**
- 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 **9.9 liter(s)**
- Total mash volume **13.2 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **9.9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **19.9 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	3.3 kg (100%)	80 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tomyski	15 g	60 min	4 %
Boil	Marynka	15 g	60 min	9.1 %
Boil	Tomyski	35 g	0 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
WLP090 - San Diego Super Yeast	Ale	Slant	100 ml	White Labs

## Extras

Type	Name	Amount	Use for	Time
Other	Łuska ryżowa	200 g	Mash	60 min
Water Agent	CaSO4	5 g	Mash	60 min

Water Agent	Lactic Acid	5 g	Mash	60 min
Fining	Whirlfloc-T	2.5 g	Boil	10 min