

# Grodziskie II

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- Gravity **9.3 BLG**
- ABV **3.6 %**
- IBU **20**
- SRM **2.7**
- 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 **27.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **17.8 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **13.8 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	3 kg (75.9%)	80 %	3
Grain	Pszeniczny	0.5 kg (12.7%)	85 %	4
Grain	Weyermann - Carapils	0.25 kg (6.3%)	78 %	4
Grain	Płatki orkiszowe	0.2 kg (5.1%)	80 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lomik	30 g	60 min	3.8 %
Boil	Lomik	20 g	30 min	3.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Wheat	Liquid	15 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Other	płatki dębowe	25 g	Bottling	---