

# Zapiski na Grodziski

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- Gravity **7.6 BLG**
- ABV **2.9 %**
- IBU **23**
- SRM **4.1**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **52.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 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 **1 min**

## Mash step by step

- Heat up **17.7 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 **1 min** at **78C**
- Sparge using **40.3 liter(s)** of **76C** water or to achieve **52.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pszeniczny wędzony dębem	5 kg (84.7%)	80 %	9
Grain	Słód pszeniczny ciemny Niemcy	0.4 kg (6.8%)	80 %	18
Grain	Prażona pszenica	0.5 kg (8.5%)	80 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	50 min	4 %
Boil	Marynka	30 g	20 min	10 %
Boil	Lublin (Lubelski)	20 g	20 min	4 %
Aroma (end of boil)	Marynka	20 g	1 min	10 %

## Yeasts

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