

# grodziskie

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- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **21**
- SRM **2.8**
- 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 **70 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **9.7 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 (83.3%)	80 %	3
Grain	Viking Pale Ale malt	0.6 kg (16.7%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	8 %
Aroma (end of boil)	cascade	20 g	0 min	7 %
Aroma (end of boil)	Lublin (Lubelski)	10 g	0 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale K-97	Ale	Dry	11 g	Fermentis