

# Grodziskie

- Gravity **7.4 BLG**
- ABV ---
- IBU **22**
- SRM **6.3**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.6 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.3 liter(s)**
- Total mash volume **12.4 liter(s)**

## Steps

- Temp **38 C**, Time **30 min**
- Temp **52 C**, Time **40 min**
- Temp **70 C**, Time **30 min**

## Mash step by step

- Heat up **9.3 liter(s)** of strike water to **41C**
- Add grains
- Keep mash **30 min** at **38C**
- Keep mash **40 min** at **52C**
- Keep mash **30 min** at **70C**
- Sparge using **20.4 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilsner (2 Row) Bel	1 kg (32.3%)	79 %	4
Grain	Pszeniczny	1 kg (32.3%)	85 %	4
Grain	Smoked Malt	1 kg (32.3%)	80 %	18
Grain	Caramunich Malt	0.1 kg (3.2%)	71.7 %	110

## Hops

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

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Fining	mech	5 g	Boil	15 min

Water Agent	gips	10 g	Mash	60 min
-------------	------	------	------	--------