

# Grodziskie 2021

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- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **25**
- SRM **2.6**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6.6 liter(s)**
- Total mash volume **8.8 liter(s)**

## Steps

- Temp **66 C**, Time **20 min**
- Temp **72 C**, Time **40 min**

## Mash step by step

- Heat up **6.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **20 min** at **66C**
- Keep mash **40 min** at **72C**
- Sparge using **10.8 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszoniczny wędzony dębem (Viking)	2.2 kg (100%)	80 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat PH 2019	10 g	45 min	12.5 %
Whirlpool	Puławski PH 2019	25 g	0 min	7.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	6 g	Mash	60 min
Water Agent	sól kuchenna	2 g	Mash	60 min
Water Agent	soda oczyszczona	3 g	Mash	60 min
Water Agent	kreda	3 g	Mash	60 min
Fining	whirflock	1 g	Boil	5 min