

# Grodziskie

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- Gravity **6.4 BLG**
- ABV ---
- IBU **11**
- SRM **3.2**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **10 %**
- Size with trub loss **44 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **53.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 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 **0 min**

## Mash step by step

- Heat up **13.5 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 **0 min** at **78C**
- Sparge using **44.9 liter(s)** of **76C** water or to achieve **53.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann pszeniczny jasny	4 kg (88.9%)	80 %	6
Grain	Orkiszowy	0.5 kg (11.1%)	82 %	4.5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	5 g	60 min	9.5 %
Boil	Cascade	15 g	45 min	6 %
Boil	Citra	10 g	5 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Kolsch	Ale	Liquid	125 ml	Wyeast Labs