

# Nano-Grodziskie

- Gravity **8.8 BLG**
- ABV **3.4 %**
- IBU **20**
- SRM **2.8**
- Style **Grodziskie/Graetzer**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **52 C**, Time **20 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **22.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	3 kg (75%)	80 %	3
Grain	Strzegom Pale Ale	1 kg (25%)	79 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	30 min	10 %
Aroma (end of boil)	Tomyski	30 g	10 min	2.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Wheat	Liquid	250 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Fining	mech	5 g	Boil	10 min