

Grodziskie

- Gravity **7.8 BLG**
- ABV **3 %**
- IBU **23**
- SRM **3.1**
- Style **Grodziskie/Graetzer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **0 %**
- Size with trub loss **20 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.5 liter(s)**
- Total mash volume **12.2 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **9.5 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Grodziski pszeniczny wędzony dębem	2.6 kg (96.3%)	82 %	6
Grain	Acid Malt	0.1 kg (3.7%)	58.7 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	10 g	60 min	13.1 %
Boil	Cascade	5 g	20 min	7.1 %
Boil	Saaz (Czech Republic)	5 g	20 min	4 %
Aroma (end of boil)	Cascade	15 g	0 min	7.1 %
Aroma (end of boil)	Saaz (Czech Republic)	15 g	0 min	4 %
Whirlpool	Cascade	15 g	---	7.1 %
Whirlpool	Saaz (Czech Republic)	15 g	---	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM51 Grodzie Dębowe	Wheat	Liquid	35 ml	Fermentum Mobile