

Grodziski Porter

- Gravity **20.2 BLG**
- ABV **8.9 %**
- IBU **46**
- SRM **29.5**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **15.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.75 liter(s) / kg**
- Mash size **12.5 liter(s)**
- Total mash volume **17.1 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	3 kg (62.5%)	80 %	16
Grain	Grodziski pszeniczny wędzony dębem	1 kg (20.8%)	80 %	3
Grain	Strzegom Karmel 150	0.25 kg (5.2%)	75 %	150
Grain	Carafa	0.15 kg (3.1%)	70 %	664
Grain	Carafa II	0.15 kg (3.1%)	70 %	812
Sugar	Brown Sugar, Dark	0.25 kg (5.2%)	100 %	99

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	13.5 %
Boil	Marynka	15 g	30 min	10 %
Aroma (end of boil)	Marynka	10 g	5 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	150 ml	Safale