

Gorzki stout 2

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **32**
- SRM **39.1**

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 **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **12.6 liter(s)**

Steps

- Temp **66 C**, Time **80 min**
- Temp **70 C**, Time **10 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **9.8 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **80 min** at **66C**
- Keep mash **10 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2 kg (71.4%)	80 %	7
Grain	Strzegom Barwiący	0.2 kg (7.1%)	68 %	1300
Grain	Czekoladowy	0.3 kg (10.7%)	60 %	788
Grain	Jęczmień niesłodowany	0.3 kg (10.7%)	75 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	30 min	10.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
safele	Ale	Dry	11.5 g	---