

## Porter gryczany

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **25**
- SRM **25.6**
- Style **Robust Porter**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **9.5 %/h**
- Boil size **30 liter(s)**

### Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **21 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.8 kg (34.3%)	80 %	5
Grain	Strzegom Monachijski typ I	1 kg (19%)	79 %	16
Grain	gryczany	1.5 kg (28.6%)	65.3 %	10
Grain	Viking melanoidynowy	0.2 kg (3.8%)	75 %	60
Grain	Strzegom Karmel 300	0.3 kg (5.7%)	70 %	299
Grain	Strzegom Czekoladowy 400	0.2 kg (3.8%)	68 %	400
Grain	Strzegom Czekoladowy 1200	0.25 kg (4.8%)	68 %	1202

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	20 g	60 min	9 %
Boil	East Kent Goldings	30 g	20 min	4.5 %

### Notes

- modyfikacja wody:  
2,5 g + 3g (wystadzenie) - CaCl<sub>2</sub>  
4g + 0g - NaHCO<sub>3</sub>  
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