

Guinnessowe

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **51**
- SRM **31.9**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.4 liter(s)**
- Total mash volume **21.1 liter(s)**

Steps

- Temp **55 C**, Time **15 min**
- Temp **65 C**, Time **60 min**
- Temp **80 C**, Time **1 min**

Mash step by step

- Heat up **16.4 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **60 min** at **65C**
- Keep mash **1 min** at **80C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (63.8%)	79 %	6
Grain	Płatki jęczmienne	0.8 kg (17%)	70 %	4
Grain	Jęczmień palony	0.25 kg (5.3%)	55 %	1000
Grain	Weyermann - Carafa III	0.35 kg (7.4%)	70 %	1024
Grain	Viking Wheat Malt	0.3 kg (6.4%)	83 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	90 g	60 min	4.5 %
Aroma (end of boil)	East Kent Goldings	10 g	60 min	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew T-58	Wine	Dry	11.5 g	fermentis

Extras

Type	Name	Amount	Use for	Time
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Fining	WHIRLFLOC	1.2 g	Boil	10 min
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