

Foreign Extra

- Gravity **18.2 BLG**
- ABV ---
- IBU **37**
- SRM **39.9**
- Style **Foreign Extra 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 **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **26.6 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **68 C**, Time **15 min**
- Temp **68 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19 liter(s)** of strike water to **77.6C**
- Add grains
- Keep mash **15 min** at **68C**
- Keep mash **10 min** at **68C**
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale ale	4.5 kg (59.2%)	79 %	7
Grain	Wędzony bukiem	1 kg (13.2%)	80 %	4
Grain	Casle Malting Whisky Nature	0.5 kg (6.6%)	85 %	4
Grain	Czekoladowy	0.3 kg (3.9%)	68 %	400
Grain	Brown	0.3 kg (3.9%)	72 %	190
Grain	Pale Chocolate	0.3 kg (3.9%)	71 %	600
Grain	Płatki jęczmienne	0.3 kg (3.9%)	70 %	4
Grain	Jęczmień palony	0.4 kg (5.3%)	65 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	40 g	60 min	10.5 %
Dry Hop	Southern Promise	50 g	7 day(s)	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar

Extras

Type	Name	Amount	Use for	Time
Fining	Irish Moss	5 g	Boil	10 min
Flavor	Płatki dębowe	50 g	Secondary	7 day(s)

Notes

- Zacieranie:
 - *Pale Ale, Wędzony, płatki jęczmienne 60minut- 68°C
 - *Pale Chocolate, Chocolate 15minut- 68°C
 - *Jęczmień palony 10 minut- 68°C
 - *Mash Out- 5minut-78°C
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