

Polskie pa

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **35**
- SRM **5**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	5 kg (83.3%)	81 %	6
Grain	Carahell	0.5 kg (8.3%)	77 %	26
Grain	Oats, Flaked	0.5 kg (8.3%)	80 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	55 min	9.5 %
Boil	Sybilla	30 g	10 min	6.2 %
Boil	Lublin (Lubelski)	30 g	10 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale