

Ruby

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **23**
- SRM **14.3**
- Style **Irish Red Ale**

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 **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.2 liter(s)**
- Total mash volume **18.9 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **14.2 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (84.6%)	81 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (10.6%)	79 %	12
Grain	Jęczmień palony	0.08 kg (1.7%)	55 %	985
Grain	Karmelowy	0.15 kg (3.2%)	75 %	600

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mosaic	10 g	60 min	10 %
Boil	Simcoe	10 g	30 min	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	200 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Water Agent	kwas mlekowy	2.4 g	Mash	60 min

Notes

- woda RO: 30 l (BIAB)
chlorek wapnia: 2,4 g
sól epsom: 4,5 g
sól kuchenna: 3,0 g
soda oczyszczona: 2,7 g
kwas mlekowy: 2,4 ml
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