

Red

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **25**
- SRM **11.8**
- Style **Irish Red Ale**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.3 liter(s)**
- Total mash volume **15 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **80 C**, Time **10 min**

Mash step by step

- Heat up **11.3 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **80C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **20.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (66.7%)	81 %	4
Grain	Strzegom Monachijski typ II	0.5 kg (13.3%)	79 %	22
Grain	Viking melanoidynowy	0.5 kg (13.3%)	75 %	60
Grain	Caramunich® typ I	0.2 kg (5.3%)	73 %	80
Grain	Jęczmień palony	0.05 kg (1.3%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	60 min	13.5 %
Aroma (end of boil)	Magnum	10 g	10 min	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	23 g	---