

IRENA

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **19**
- SRM **5.7**
- 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.7 liter(s)**
- Total mash volume **18.2 liter(s)**

Steps

- Temp **52 C**, Time **20 min**
- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **13.7 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (87.7%)	81 %	4
Grain	Carared	0.25 kg (5.5%)	75 %	45
Grain	Caraamber	0.25 kg (5.5%)	75 %	70
Grain	palone ziarna jęczmienia	0.06 kg (1.3%)	80 %	---

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	25 min	10 %
Boil	Lublin (Lubelski)	20 g	10 min	4 %

Extras

Type	Name	Amount	Use for	Time
Fining	mech	4 g	Boil	20 min