

ES IRA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **15**
- SRM **14.1**
- Style **Irish Red Ale**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.2 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.4 liter(s)**
- Total mash volume **21.8 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **16.4 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **77C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **25.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4.6 kg (84.3%)	79 %	6
Grain	Strzegom Wiedeński	0.5 kg (9.2%)	79 %	10
Grain	Strzegom Karmel 150	0.275 kg (5%)	75 %	150
Grain	Strzegom Barwiący	0.08 kg (1.5%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Puławski	30 g	60 min	4.3 %

Yeasts

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