

Czerwone

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **20**
- SRM **15.7**
- 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 **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **15.8 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **60 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2 kg (44.4%)	82 %	4
Grain	Viking Pale Ale malt	1 kg (22.2%)	80 %	5
Grain	Karmelowy Czerwony	1 kg (22.2%)	75 %	59
Grain	Strzegom Karmel 300	0.5 kg (11.1%)	70 %	299

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sybilla	50 g	60 min	3.5 %

Yeasts

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