

red ale

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **45**
- SRM **7.4**
- Style **Red IPA**

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 **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **70 C**, Time **30 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **70C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (87.7%)	80 %	4
Grain	caramunich	0.3 kg (5.3%)	--- %	---
Grain	Carahell	0.3 kg (5.3%)	77 %	26
Grain	Strzegom Czekoladowy jasny	0.1 kg (1.8%)	68 %	400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	30 g	60 min	8.5 %
Boil	Amarillo	30 g	30 min	7.1 %
Boil	Centennial	10 g	5 min	8.5 %
Boil	Amarillo	10 g	0 min	7.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
fermentum mobile 52	Ale	Slant	200 ml	---