

Czerwony Baron

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **42**
- SRM **16.2**
- Style **American Amber Ale**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.3 kg (81.1%)	81 %	4
Grain	Pszeniczny	0.3 kg (5.7%)	85 %	4
Grain	Żytni	0.5 kg (9.4%)	85 %	8
Grain	Caraaroma	0.05 kg (0.9%)	78 %	400
Grain	Extra black	0.15 kg (2.8%)	65 %	1400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	10 %
Boil	Mosaic	25 g	15 min	10 %
Boil	Simcoe	25 g	5 min	13.2 %
Boil	Amarillo	25 g	5 min	9.5 %
Dry Hop	sabro	30 g	4 day(s)	11 %
Dry Hop	Citra	50 g	4 day(s)	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-04	Ale	Slant	150 ml	Safale
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