

## Red Ale Redemption #2

- Gravity **16.4 BLG**
- ABV ---
- IBU **30**
- SRM **25.9**
- Style **American Pale 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 **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **68 C**, Time **15 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **15 min** at **68C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	3 kg (50%)	80 %	7
Grain	Żytni	1 kg (16.7%)	85 %	8
Grain	Casle Malting Whisky Nature	0.5 kg (8.3%)	85 %	4
Grain	Cherry Briess	0.5 kg (8.3%)	80.5 %	10
Grain	Karmelowy Czerwony	0.5 kg (8.3%)	75 %	59
Grain	Red crystal	0.5 kg (8.3%)	71.3 %	400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	15.5 %
Boil	Chinook	15 g	15 min	13 %
Aroma (end of boil)	Amarillo	30 g	3 min	9.5 %
Dry Hop	Chinook	35 g	5 day(s)	13 %
Dry Hop	Amarillo	20 g	5 day(s)	9.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	10 g	Fermentis