

## Red

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **41**
- SRM **13.2**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **25.4 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**

### Mash step by step

- Heat up **19 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (47.2%)	81 %	3
Grain	viking malt red active	2 kg (31.5%)	78 %	35
Grain	Weyermann - Carared	1 kg (15.7%)	75 %	45
Grain	Płatki pszeniczne	0.3 kg (4.7%)	60 %	3
Grain	Jęczmień palony	0.05 kg (0.8%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	CTZ	20 g	60 min	14.5 %
Boil	CTZ	10 g	30 min	14.5 %
Boil	Amarillo	10 g	5 min	9.5 %
Aroma (end of boil)	Amarillo	10 g	0 min	9.5 %
Aroma (end of boil)	Citra	10 g	0 min	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwowarski	4 g	Boil	60 min
Fining	mech irlandzki	5 g	Boil	15 min