

Red Ale

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **27**
- SRM **10.8**

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 **12 %/h**
- Boil size **26.9 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.8 liter(s)**
- Total mash volume **28 liter(s)**

Steps

- Temp **67 C**, Time **50 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **21.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **10 min** at **72C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.8 kg (61%)	80 %	5
Grain	Viking Pilsner malt	1.5 kg (24.1%)	82 %	4
Grain	Strzegom Karmel 50	0.4 kg (6.4%)	75 %	30
Grain	Strzegom Karmel 300	0.2 kg (3.2%)	70 %	299
Grain	Weyermann - Acidulated Malt	0.3 kg (4.8%)	80 %	6
Grain	Jęczmień palony	0.03 kg (0.5%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Topaz	5 g	60 min	15 %
Aroma (end of boil)	Topaz	20 g	15 min	15 %
Aroma (end of boil)	topaz	15 g	5 min	15 %
Aroma (end of boil)	Topaz	15 g	0 min	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP001 - California Ale Yeast	Ale	Liquid	1000 ml	White Labs