

Rancors Rage

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **49**
- SRM **5.3**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **1 %**
- Size with trub loss **11.7 liter(s)**
- Boil time **70 min**
- Evaporation rate **19 %/h**
- Boil size **15 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.6 liter(s)**
- Total mash volume **14.9 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **11.6 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **6.7 liter(s)** of **76C** water or to achieve **15 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale (Malteurop)	2.5 kg (75.8%)	80 %	5
Grain	Pszeniczny (Malteurop)	0.7 kg (21.2%)	85 %	4
Grain	Abbey (Castle)	0.1 kg (3%)	80 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	15 g	60 min	13 %
Aroma (end of boil)	Nelson Sauvín	5 g	5 min	13.2 %
Aroma (end of boil)	Mosaic	10 g	5 min	10 %
Aroma (end of boil)	Simcoe	10 g	5 min	13.2 %
Aroma (end of boil)	Nelson Sauvín	5 g	1 min	13.2 %
Aroma (end of boil)	Mosaic	10 g	1 min	10 %
Aroma (end of boil)	Simcoe	10 g	1 min	13.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM54 Gorączka Kalifornijska	Ale	Liquid	45 ml	Fermentum Mobile