

#14 Kangoroo Pale Ale - Twój Browar

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **39**
- SRM **7.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **38.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **46.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **26.9 liter(s)**
- Total mash volume **34.6 liter(s)**

Steps

- Temp **68 C**, Time **2 min**
- Temp **65 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **26.9 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **70 min** at **65C**
- Keep mash **2 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **27 liter(s)** of **76C** water or to achieve **46.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	7 kg (90.9%)	80 %	5
Grain	Strzegom Karmel 150	0.52 kg (6.8%)	75 %	150
Grain	Karmelowy Jasny 30EBC	0.18 kg (2.3%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Enigma (AUS)	18 g	60 min	17.2 %
Boil	Enigma (AUS)	17 g	10 min	17.2 %
Whirlpool	Vic Secret	70 g	10 min	16.3 %
Dry Hop	Galaxy	70 g	4 day(s)	15 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	23 g	Fermentis