

HB TROPICAL ALE

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **20**
- SRM **3.4**
- Style **American IPA**

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 **13.5 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **10 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **10 min** at **72C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilznieński	4 kg (88.9%)	81 %	4
Grain	Pszeniczny	0.5 kg (11.1%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Mash	Pacifica (NZ)	20 g	60 min	4.8 %
Aroma (end of boil)	Riwaka	50 g	30 min	3.3 %
Whirlpool	Riwaka	50 g	20 min	3.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM54 Gorączka kalifornijska	Ale	Liquid	40 ml	Fermentum Mobile