

# Tropical lager

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **31**
- SRM **4**
- Style **Premium American Lager**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

## Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **11.6 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.3 kg (86%)	81 %	4
Grain	Weyermann - Carapils	0.2 kg (4%)	78 %	4
Grain	Wiedenski Malt	0.5 kg (10%)	79 %	7

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Boil	cos dodac, male AK.	15 g	15 min	6 %
Whirlpool	Enigma (AUS)	30 g	3 min	17.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11 g	Fermentis