

# TROPICAL LAGER

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **21**
- SRM **6.2**
- Style **Standard American Lager**

## 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 **3.5 liter(s) / kg**
- Mash size **16.4 liter(s)**
- Total mash volume **21.1 liter(s)**

## Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.4 liter(s)** of strike water to **69.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3.9 kg (83%)	82 %	4
Grain	Strzegom Wiedeński	0.6 kg (12.8%)	79 %	10
Grain	Strzegom Karmel 150	0.2 kg (4.3%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	10 %
Aroma (end of boil)	Cascade	30 g	5 min	6 %
Whirlpool	Cascade	30 g	1 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
w-34/70	Lager	Dry	10 g	---