

## tropic lager

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU ---
- SRM **6.4**
- 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 **3.8 liter(s) / kg**
- Mash size **18.2 liter(s)**
- Total mash volume **23 liter(s)**

### Steps

- Temp **65 C**, Time **40 min**
- Temp **70 C**, Time **20 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **18.2 liter(s)** of strike water to **70.9C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **70C**
- Keep mash **15 min** at **78C**
- Sparge using **11.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.6 kg (75%)	80 %	4
Grain	Strzegom Wiedeński	1 kg (20.8%)	79 %	10
Grain	Strzegom Karmel 150	0.2 kg (4.2%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Mash	Marynka	25 g	60 min	10 %
Mash	Enigma (AUS)	20 g	15 min	17.2 %
Aroma (end of boil)	Enigma (AUS)	20 g	0 min	17.2 %