

tropic lager

- 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 % |