

Cascade PL Pale Ale

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **40**
- SRM **4.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **76C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale | 5 kg (90.9%) | 79 % | 6 |
| Grain | Płatki owsiane | 0.5 kg (9.1%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|--------------|--------|--------|------------|
| Boil | Cascade PL | 50 g | 10 min | 5.2 % |
| Boil | Amarillo | 25 g | 10 min | 6 % |
| Whirlpool | Enigma (AUS) | 25 g | 15 min | 18.3 % |
| Whirlpool | Amarillo | 50 g | 15 min | 6 % |
| Whirlpool | Citra | 25 g | 15 min | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |