

Cascade Pale Ale

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **40**
- SRM **7.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.9 liter(s)**
- Total mash volume **22.6 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **16.9 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **78C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.5 kg (79.6%) | 80 % | 5 |
| Grain | Weyermann - Carared | 0.25 kg (4.4%) | 75 % | 45 |
| Grain | Weyermann Caramunich 3 | 0.25 kg (4.4%) | 76 % | 150 |
| Grain | Płatki pszeniczne | 0.35 kg (6.2%) | 60 % | 3 |
| Grain | płatki jęczmienne | 0.3 kg (5.3%) | 60 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Cascade | 30 g | 60 min | 6 % |
| Boil | Cascade | 30 g | 15 min | 6 % |
| Aroma (end of boil) | Cascade | 40 g | 15 min | 6 % |

Yeasts

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

Extras

| Type | Name | Amount | Use for | Time |
|-------------|---|--------|----------|--------|
| Water Agent | Gips | 4 g | Mash | 30 min |
| Other | Pożywka drożdżowa Fermanits SpringFerm BR-2 | 2 g | Boil | 10 min |
| Other | kwask askorbinowy | 4 g | Bottling | --- |