

Cascade Pale Ale

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **36**
- SRM **5.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24.4 liter(s)**
- Total mash volume **30.6 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **24.4 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|-----------------|-------|-----|
| Grain | Strzegom Pale Ale | 0.83 kg (13.6%) | 79 % | 6 |
| Grain | Strzegom Pilzneński | 1.5 kg (24.5%) | 80 % | 4 |
| Grain | Strzegom Pszeniczny | 1 kg (16.4%) | 81 % | 6 |
| Grain | Karmelowy Jasny 30EBC | 0.28 kg (4.6%) | 75 % | 30 |
| Grain | Strzegom Wiedeński | 2.5 kg (40.9%) | 79 % | 10 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------|--------|----------|------------|
| Boil | Cascade | 20 g | 10 min | 6 % |
| Boil | Centennial | 30 g | 60 min | 10.5 % |
| Whirlpool | Cascade | 15 g | 15 min | 6 % |
| Dry Hop | Cascade | 20 g | 5 day(s) | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 7 g | Fermentis |