

Apa

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **40**
- SRM **5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Steps

- Temp **65 C**, Time **60 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Strzegom Pilzneński | 4.5 kg (90%) | 80 % | 4 |
| Grain | Abbey Malt Weyermann | 0.3 kg (6%) | 75 % | 45 |
| Grain | Karmelowy Czerwony | 0.2 kg (4%) | 75 % | 59 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|------------|--------|----------|------------|
| First Wort | Chinook | 15 g | 60 min | 13 % |
| Whirlpool | Cascade PL | 50 g | 15 min | 5.2 % |
| Whirlpool | Citra | 50 g | 15 min | 12 % |
| Dry Hop | Lemon drop | 50 g | 3 day(s) | 4.6 % |
| Dry Hop | Citra | 50 g | 3 day(s) | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|--------|---------|------------|
| Wyesat 1272 | Ale | Liquid | 1500 ml | Starter |