

APA 1

- Gravity **14.3 BLG**
- ABV ---
- IBU **49**
- SRM **7.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22.6 liter(s)**

Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Pszeniczny | 0.5 kg (8.8%) | 85 % | 3 |
| Grain | Pale Ale | 5 kg (88.5%) | 80 % | 5.5 |
| Grain | Strzegom Karmel 150 | 0.15 kg (2.7%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|----------|------------|
| Boil | Columbus | 20 g | 45 min | 15 % |
| Boil | Columbus | 10 g | 20 min | 15 % |
| Boil | Citra | 15 g | 10 min | 12.4 % |
| Boil | Equinox | 15 g | 10 min | 13.4 % |
| Boil | Citra | 15 g | 0 min | 12.4 % |
| Dry Hop | Equinox | 60 g | 6 day(s) | 13.4 % |
| Boil | Equinox | 15 g | 0 min | 13.4 % |

Yeasts

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