

Chocolate APA

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **34**
- SRM **11.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------|--------------|-------|-----|
| Grain | Pilzneński | 4 kg (80%) | 81 % | 4 |
| Grain | Pszeniczny | 0.8 kg (16%) | 85 % | 4 |
| Grain | Briess - Chocolate Malt | 0.2 kg (4%) | 60 % | 690 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Puławski | 10 g | 30 min | 8.9 % |
| Boil | Mosaic | 10 g | 30 min | 11.8 % |
| Boil | Centennial | 10 g | 15 min | 9.7 % |
| Boil | Mosaic | 10 g | 15 min | 11.8 % |
| Boil | Centennial | 10 g | 5 min | 9.7 % |
| Boil | Mosaic | 10 g | 5 min | 11.8 % |
| Boil | Puławski | 10 g | 5 min | 8.9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-05 | Ale | Slant | 30 ml | fermentis |