

APA (experimental mix)

- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **36**
- SRM **6.6**
- 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 **10 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **14.6 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **11.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **18.3 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Pszeniczny | 1 kg (30.8%) | 85 % | 4 |
| Grain | Pilzneński | 1 kg (30.8%) | 81 % | 4 |
| Grain | Monachijski | 1 kg (30.8%) | 80 % | 16 |
| Grain | Strzegom Karmel 150 | 0.25 kg (7.7%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|----------|------------|
| Boil | Mandarina Bavaria | 10 g | 60 min | 10 % |
| Boil | Mandarina Bavaria | 20 g | 15 min | 10 % |
| Aroma (end of boil) | Mandarina Bavaria | 20 g | 2 min | 10 % |
| Whirlpool | Cascade PL | 50 g | 20 min | 5.2 % |
| Dry Hop | Cascade PL | 50 g | 4 day(s) | 5.2 % |
| Dry Hop | Izabela | 100 g | 4 day(s) | 5.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 250 ml | Fermentis |