

APA

- Gravity **11.9 BLG**
- ABV ---
- IBU **34**
- SRM **5.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.1 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

Steps

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

Mash step by step

- Heat up **12.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **20.5 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Pilzneński | 3.8 kg (88.4%) | 81 % | 4 |
| Grain | Melanoiden Malt | 0.25 kg (5.8%) | 80 % | 39 |
| Grain | Strzegom Karmel 30 | 0.25 kg (5.8%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Chinook | 15 g | 60 min | 13.4 % |
| Aroma (end of boil) | Mosaic | 10 g | 15 min | 12 % |
| Aroma (end of boil) | Cascade | 10 g | 15 min | 7 % |
| Aroma (end of boil) | Mosaic | 10 g | 5 min | 12 % |
| Aroma (end of boil) | Cascade | 10 g | 5 min | 6 % |
| Aroma (end of boil) | Centennial | 25 g | 0 min | 10.5 % |
| Aroma (end of boil) | Cascade | 25 g | 0 min | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
| us | Ale | Dry | 11 g | --- |