

Fruit APA

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **36**
- SRM **5.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **8 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.2 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **5.5 liter(s) / kg**
- Mash size **28.6 liter(s)**
- Total mash volume **33.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **28.6 liter(s)** of strike water to **72.4C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **4.8 liter(s)** of **76C** water or to achieve **28.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Viking Pale Ale malt | 4 kg (76.9%) | 80 % | 5 |
| Grain | Weyermann pszeniczny jasny | 1 kg (19.2%) | 80 % | 6 |
| Grain | Karmelowy 100EBC | 0.2 kg (3.8%) | 75 % | 100 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Cascade PL | 15 g | 40 min | 5.2 % |
| Boil | Mandarina Bavaria | 15 g | 30 min | 10 % |
| Aroma (end of boil) | Cascade PL | 20 g | 5 min | 5.2 % |
| Aroma (end of boil) | Mandarina Bavaria | 30 g | 5 min | 10 % |
| Whirlpool | Mandarina Bavaria | 40 g | 10 min | 10 % |
| Whirlpool | Cascade PL | 20 g | 10 min | 5.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|--------|--------|------------|
| FM52 Amerykański Sen | Ale | Liquid | 40 ml | --- |