

APA

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **29**
- SRM **4.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.2 liter(s)**
- Total mash volume **19.5 liter(s)**

Steps

- Temp **55 C**, Time **0 min**
- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **15.2 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **0 min** at **55C**
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3 kg (69.3%) | 80 % | 5 |
| Grain | Pszeniczny | 0.33 kg (7.6%) | 85 % | 4 |
| Grain | Strzegom Monachijski typ I | 1 kg (23.1%) | 79 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Marynka | 15 g | 60 min | 10 % |
| Aroma (end of boil) | Citra | 15 g | 10 min | 12 % |
| Whirlpool | Citra | 10 g | 20 min | 12 % |