

PA JAKA APA

- Gravity **16.4 BLG**
- ABV ---
- IBU **61**
- SRM **9.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **25 liter(s)**

Steps

- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **18.8 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|--------------|-------|-----|
| Grain | Strzegom Karmel 150 | 0.25 kg (4%) | 75 % | 150 |
| Grain | Strzegom Pale Ale | 5 kg (80%) | 79 % | 6 |
| Grain | Strzegom Pilzneński | 1 kg (16%) | 80 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|----------|------------|
| Boil | Magnum | 50 g | 60 min | 13.5 % |
| Whirlpool | Cascade | 30 g | 120 min | 6 % |
| Dry Hop | Citra | 50 g | 7 day(s) | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |