

APA

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **39**
- SRM **4.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20.5 liter(s)**
- Trub loss **8 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.6 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **24.2 liter(s)**
- Total mash volume **30.3 liter(s)**

Steps

- Temp **63 C**, Time **25 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **24.2 liter(s)** of strike water to **68.4C**
- Add grains
- Keep mash **25 min** at **63C**
- Keep mash **30 min** at **72C**
- Sparge using **8.5 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|-----------------|-------|-----|
| Grain | Strzegom Pale Ale | 5.25 kg (86.8%) | 79 % | 6 |
| Grain | Pilzneński | 0.8 kg (13.2%) | 81 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|----------|------------|
| Boil | Marynka | 30 g | 60 min | 7.8 % |
| Boil | Cascade PL | 10 g | 60 min | 7.3 % |
| Boil | Cascade PL | 15 g | 15 min | 7.3 % |
| Boil | Cascade PL | 15 g | 5 min | 7.3 % |
| Dry Hop | Cascade PL | 50 g | 4 day(s) | 7.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 11 g | --- |