

wesALE

- Gravity **14.5 BLG**
- ABV ---
- IBU **31**
- SRM **10.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **25 %**
- Size with trub loss **25 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|----------------------------|---------------|-------|-----|
| Grain | Strzegom Monachijski typ I | 0.5 kg (7.8%) | 79 % | 16 |
| Grain | Strzegom Pilzneński | 2 kg (31.3%) | 80 % | 4 |
| Grain | Strzegom Wiedeński | 1 kg (15.6%) | 79 % | 10 |
| Grain | Strzegom Pale Ale | 1 kg (15.6%) | 79 % | 6 |
| Grain | Aroma CastleMalting | 0.5 kg (7.8%) | 78 % | 100 |
| Grain | Strzegom pszeniczny | 0.5 kg (7.8%) | 81 % | 6 |
| Adjunct | Pszenica niestodowana | 0.5 kg (7.8%) | 75 % | 3 |
| Adjunct | płatki owsiane | 0.4 kg (6.3%) | --- % | 1 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------|--------|--------|------------|
| Aroma (end of boil) | Summit | 10 g | 15 min | 15.8 % |
| Aroma (end of boil) | Simcoe | 10 g | 15 min | 13 % |
| Aroma (end of boil) | Perle | 20 g | 10 min | 7 % |
| Boil | Bravo | 13.5 g | 15 min | 13.7 % |

| | | | | |
|---------------------|---------|------|----------|--------|
| Aroma (end of boil) | Citra | 10 g | 10 min | 12 % |
| Whirlpool | Citra | 20 g | 0 min | 12 % |
| Whirlpool | Equinox | 20 g | 0 min | 13.1 % |
| Dry Hop | Citra | 50 g | 5 day(s) | 12 % |
| Dry Hop | Equinox | 50 g | 5 day(s) | 13.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-05 | Ale | Dry | 12 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|-------|----------|--------|---------|-------|
| Spice | hibiskus | 5 g | Boil | 5 min |
| Spice | kolendra | 5 g | Boil | 5 min |