

Columbo

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **45**
- SRM **8.1**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

Steps

- Temp **66 C**, Time **60 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2 kg (57.1%) | 80 % | 5 |
| Grain | Honey Malt | 0.5 kg (14.3%) | 80 % | 15 |
| Grain | Strzegom Monachijski typ I | 0.5 kg (14.3%) | 79 % | 16 |
| Grain | Strzegom Karmel 200 | 0.1 kg (2.9%) | 75 % | 200 |
| Grain | Płatki owsiane | 0.4 kg (11.4%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|----------|------------|
| Boil | marynka | 20 g | 60 min | 8.5 % |
| Boil | Citra | 15 g | 10 min | 12 % |
| Boil | Amarillo | 10 g | 10 min | 7.5 % |
| Dry Hop | Citra | 15 g | 3 day(s) | 12 % |
| Dry Hop | Amarillo | 10 g | 3 day(s) | 7.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|--------|--------|------------|
| wyeast 1450 | Ale | Liquid | 500 ml | wyeast |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|--------|---------|--------|
| Water Agent | gips piwowarski | 5 g | Boil | 60 min |
| Fining | mech irlandzki | 5 g | Boil | 10 min |