

Pi

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **39**
- SRM **5.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23.8 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**

Mash step by step

- Heat up **17.9 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 5 kg (84%) | 79 % | 6 |
| Grain | Bestmalz Carmel Pils | 0.5 kg (8.4%) | 75 % | 26 |
| Grain | Słód pszeniczny Bestmalz | 0.2 kg (3.4%) | 82 % | 5 |
| Grain | Płatki owsiane | 0.25 kg (4.2%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Citra | 20 g | 30 min | 13.5 % |
| Boil | Cascade | 20 g | 30 min | 7 % |
| Boil | Cascade | 10 g | 15 min | 7 % |
| Boil | Citra | 10 g | 15 min | 13.5 % |
| Boil | Cascade | 20 g | 0 min | 7 % |
| Aroma (end of boil) | Citra | 20 g | 0 min | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------|------|------|--------|------------|
| Fermentis US-05 | Ale | Dry | 10 g | --- |