

Ważka

- Gravity **9.8 BLG**
- ABV **3.8 %**
- IBU **15**
- SRM **4.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **33 liter(s)**
- Trub loss **2 %**
- Size with trub loss **34.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **3 %/h**
- Boil size **36.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.7 liter(s)**
- Total mash volume **25.3 liter(s)**

Steps

- Temp **63 C**, Time **45 min**
- Temp **66 C**, Time **20 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **19.7 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **20 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **22.3 liter(s)** of **76C** water or to achieve **36.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 1.5 kg (26.7%) | 80 % | 4 |
| Grain | Strzegom Pale Ale | 1.5 kg (26.7%) | 79 % | 6 |
| Grain | Strzegom Karmel 30 | 0.36 kg (6.4%) | 75 % | 30 |
| Grain | Honey Malt | 0.26 kg (4.6%) | 80 % | 49 |
| Grain | Pilzneński | 2 kg (35.6%) | 81 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Celeia | 10 g | 60 min | 5.3 % |
| Boil | Progress | 10 g | 60 min | 6.9 % |
| Boil | Mosaic | 2.5 g | 15 min | 11.8 % |
| Boil | Simcoe | 2.5 g | 15 min | 13.3 % |
| Boil | Cascade | 2.5 g | 15 min | 7.1 % |
| Boil | Centenial | 2.5 g | 15 min | 9.7 % |
| Boil | Mosaic | 2.5 g | 5 min | 11.8 % |
| Boil | Simcoe | 2.5 g | 5 min | 13.3 % |

| | | | | |
|---------|------------|-------|----------|--------|
| Boil | Cascade | 2.5 g | 5 min | 7.1 % |
| Boil | Centennial | 2.5 g | 5 min | 9.7 % |
| Dry Hop | Mosaic | 5 g | 7 day(s) | 11.8 % |
| Dry Hop | Simcoe | 5 g | 7 day(s) | 13.3 % |
| Dry Hop | Cascade | 5 g | 7 day(s) | 7.1 % |
| Dry Hop | Centennial | 5 g | 7 day(s) | 9.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 375 ml | --- |