

sesyjne

- Gravity **10 BLG**
- ABV **4 %**
- IBU **103**
- SRM **4.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

Steps

- Temp **67 C**, Time **75 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **10.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **10 min** at **76C**
- Sparge using **18.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 2.9 kg (82.9%) | 79 % | 6 |
| Grain | Płatki owsiane | 0.4 kg (11.4%) | 85 % | 3 |
| Grain | Caramunich® typ I | 0.2 kg (5.7%) | 73 % | 80 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 10 g | 60 min | 15.5 % |
| Boil | Mosaic | 40 g | 15 min | 11 % |
| Boil | Mosaic | 10 g | 5 min | 11 % |
| Whirlpool | Amarillo 80st | 50 g | 45 min | 9.5 % |
| Whirlpool | Centennial 80st | 50 g | 45 min | 10.5 % |
| Dry Hop | Columbus/Tomahawk/Zeus | 40 g | 3 day(s) | 15.5 % |
| Dry Hop | Amarillo | 50 g | 3 day(s) | 9.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | --- |