

Wariacja z APA

- Gravity **13.8 BLG**
- ABV ---
- IBU **46**
- SRM **11.2**
- 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **72 C**, Time **15 min**

Mash step by step

- Heat up **15.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **15 min** at **72C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 4 kg (78.4%) | 79 % | 6 |
| Grain | Strzegom Monachijski typ I | 0.8 kg (15.7%) | 79 % | 16 |
| Grain | Karmelowy Czerwony | 0.2 kg (3.9%) | 75 % | 59 |
| Grain | Strzegom Karmel 300 | 0.1 kg (2%) | 70 % | 299 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|----------|------------|
| Boil | Warrior | 10 g | 60 min | 15.5 % |
| Boil | Warrior | 10 g | 30 min | 15.5 % |
| Boil | Cascade | 10 g | 10 min | 6 % |
| Boil | Cascade | 15 g | 0 min | 6 % |
| Dry Hop | Cascade | 25 g | 7 day(s) | 6 % |
| Boil | East Kent Goldings | 10 g | 60 min | 5.2 % |
| Boil | East Kent Goldings | 10 g | 10 min | 5.2 % |
| Boil | East Kent Goldings | 10 g | 20 min | 5.1 % |

Yeasts

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