

APA

- Gravity **13.5 BLG**
- ABV ---
- IBU **43**
- SRM **9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **64 C**, Time **60 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 5 kg (83.3%) | 79 % | 6 |
| Grain | Pilzneński | 0.8 kg (13.3%) | 81 % | 4 |
| Grain | Karmelowy żytni Strzegom | 0.2 kg (3.3%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|---------|--------|----------|------------|
| First Wort | Marynka | 30 g | 60 min | 9.5 % |
| Boil | Cascade | 10 g | 60 min | 6.5 % |
| Boil | Cascade | 15 g | 15 min | 6.5 % |
| Boil | Cascade | 15 g | 5 min | 6.5 % |
| Dry Hop | Cascade | 50 g | 4 day(s) | 6.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 11 g | --- |