

APA

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **60**
- SRM **9.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **25.2 liter(s)**
- Total mash volume **32.4 liter(s)**

Steps

- Temp **64 C**, Time **80 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **25.2 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **80 min** at **64C**
- Keep mash **5 min** at **78C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale | 6 kg (83.3%) | 79 % | 6 |
| Grain | Pilzneński | 1 kg (13.9%) | 81 % | 4 |
| Grain | Strzegom Czekoladowy jasny | 0.2 kg (2.8%) | 68 % | 400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Magnum | 30 g | 60 min | 13.5 % |
| Boil | Cascade | 15 g | 60 min | 6.5 % |
| Boil | Cascade | 15 g | 30 min | 6.5 % |
| Boil | Citra | 15 g | 25 min | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|-------|--------|------------|
| US-05 | Ale | Slant | 50 ml | --- |