

APA 1

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **42**
- SRM **6.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **15.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.7 liter(s)**
- Total mash volume **13.7 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **10.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **15.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|----------------|-------|-----|
| Grain | Pilzneński | 2.5 kg (82%) | 81 % | 4 |
| Grain | Pszeniczny | 0.3 kg (9.8%) | 85 % | 4 |
| Grain | Strzegom Karmel 150 | 0.25 kg (8.2%) | 75 % | 100 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|----------|--------|----------|------------|
| Boil | lunga | 20 g | 55 min | 11 % |
| Whirlpool | Amarillo | 40 g | 1 min | 8.5 % |
| Whirlpool | Chinook | 48 g | 1 min | 11.7 % |
| Dry Hop | Citra | 50 g | 2 day(s) | 12.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |