

APA

- Gravity **14.1 BLG**
- ABV ---
- IBU **47**
- SRM **6.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **10 %**
- Size with trub loss **14.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **16.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.9 liter(s)**
- Total mash volume **13.2 liter(s)**

Steps

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

Mash step by step

- Heat up **9.9 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **10.2 liter(s)** of **76C** water or to achieve **16.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|----------------|-------|-----|
| Grain | Pilzneński | 2 kg (60.6%) | 81 % | 4 |
| Grain | Monachijski | 0.25 kg (7.6%) | 80 % | 16 |
| Grain | Strzegom Wiedeński | 0.25 kg (7.6%) | 79 % | 10 |
| Grain | Strzegom Karmel 30 | 0.3 kg (9.1%) | 75 % | 30 |
| Grain | Barley, Flaked | 0.2 kg (6.1%) | 70 % | 4 |
| Grain | Pszoniczny | 0.3 kg (9.1%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil | Citra | 10 g | 60 min | 12 % |
| Boil | Cascade | 5 g | 30 min | 6 % |
| Boil | Citra | 5 g | 30 min | 12 % |
| Aroma (end of boil) | Citra | 5 g | 15 min | 12 % |
| Aroma (end of boil) | Amarillo | 5 g | 15 min | 9.5 % |
| Whirlpool | Cascade | 10 g | 0 min | 6 % |
| Dry Hop | Amarillo | 10 g | 7 day(s) | 9.5 % |
| Dry Hop | Cascade | 10 g | 7 day(s) | 6 % |
| Boil | Amarillo | 5 g | 30 min | 9.5 % |

Yeasts

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

| Name | Type | Form | Amount | Laboratory |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale | Dry | 6 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|---------------|----------------|-------------|
| Fining | mech irlandzki | 3 g | Boil | 60 min |
| Water Agent | gips piwowarski | 2 g | Mash | 60 min |