

## PZ APA

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- Gravity **13.6 BLG**
- ABV ---
- IBU **40**
- SRM **5.2**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **39.6 liter(s)**

### Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **74 C**, Time **10 min**

### Mash step by step

- Heat up **24 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **74C**
- Sparge using **23.6 liter(s)** of **76C** water or to achieve **39.6 liter(s)** of wort

### Fermentables

| Type  | Name              | Amount       | Yield | EBC |
|-------|-------------------|--------------|-------|-----|
| Grain | Pilzneński        | 6 kg (75%)   | 81 %  | 4   |
| Grain | Pszeniczny        | 1 kg (12.5%) | 85 %  | 4   |
| Grain | Strzegom Pale Ale | 1 kg (12.5%) | 81 %  | 12  |

### Hops

| Use for   | Name     | Amount | Time     | Alpha acid |
|-----------|----------|--------|----------|------------|
| Boil      | lunga    | 40 g   | 60 min   | 11 %       |
| Boil      | Citra    | 15 g   | 10 min   | 12 %       |
| Boil      | Ahtanum  | 15 g   | 5 min    | 5 %        |
| Boil      | Amarillo | 15 g   | 5 min    | 9.5 %      |
| Whirlpool | Citra    | 20 g   | 0 min    | 12 %       |
| Whirlpool | Ahtanum  | 20 g   | 0 min    | 5 %        |
| Whirlpool | Amarillo | 20 g   | 0 min    | 9.5 %      |
| Dry Hop   | Citra    | 20 g   | 5 day(s) | 12 %       |
| Dry Hop   | Ahtanum  | 20 g   | 5 day(s) | 5 %        |
| Dry Hop   | Amarillo | 20 g   | 5 day(s) | 9.5 %      |

### Yeasts

| <b>Name</b>  | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale         | Dry         | 20 g          | Fermentis         |