

## APA 22

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **34**
- SRM **7.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **100 liter(s)**
- Trub loss **5 %**
- Size with trub loss **105 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **126.5 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **90 liter(s)**
- Total mash volume **120 liter(s)**

### Steps

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

### Mash step by step

- Heat up **90 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **66.5 liter(s)** of **76C** water or to achieve **126.5 liter(s)** of wort

### Fermentables

| Type  | Name                     | Amount        | Yield | EBC |
|-------|--------------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale        | 25 kg (83.3%) | 79 %  | 6   |
| Grain | Pilzneński               | 4 kg (13.3%)  | 81 %  | 4   |
| Grain | Karmelowy żytni Strzegom | 1 kg (3.3%)   | 75 %  | 150 |

### Hops

| Use for    | Name    | Amount | Time     | Alpha acid |
|------------|---------|--------|----------|------------|
| First Wort | Marynka | 100 g  | 60 min   | 9.1 %      |
| Boil       | Cascade | 80 g   | 60 min   | 5 %        |
| Boil       | Cascade | 60 g   | 15 min   | 5 %        |
| Boil       | Cascade | 60 g   | 5 min    | 5 %        |
| Dry Hop    | Cascade | 200 g  | 4 day(s) | 5 %        |

### Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale  | Dry  | 57.5 g | fermentis  |