

## #18 The alchemist

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- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **72**
- SRM **5.1**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23 liter(s)**

### Steps

- Temp **69 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **17.3 liter(s)** of strike water to **77.1C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **5 min** at **78C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount         | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale           | 4.5 kg (78.3%) | 79 %  | 6   |
| Grain | Strzegom Wiedeński          | 0.75 kg (13%)  | 79 %  | 10  |
| Grain | Strzegom Pszeniczny         | 0.4 kg (7%)    | 81 %  | 6   |
| Grain | Strzegom Monachijski typ II | 0.1 kg (1.7%)  | 79 %  | 22  |

### Hops

| Use for   | Name                   | Amount | Time     | Alpha acid |
|-----------|------------------------|--------|----------|------------|
| Boil      | Columbus/Tomahawk/Zeus | 35 g   | 60 min   | 16.5 %     |
| Boil      | Mosaic                 | 6 g    | 25 min   | 12.6 %     |
| Boil      | Amarillo               | 6 g    | 25 min   | 7.8 %      |
| Boil      | Mosaic                 | 6 g    | 15 min   | 12.6 %     |
| Boil      | Citra                  | 6 g    | 15 min   | 12.6 %     |
| Boil      | Cascade PL             | 6 g    | 15 min   | 5.5 %      |
| Boil      | Amarillo               | 6 g    | 15 min   | 7.8 %      |
| Whirlpool | Cascade PL             | 10 g   | 0 min    | 7.8 %      |
| Whirlpool | Citra                  | 10 g   | 0 min    | 12.6 %     |
| Dry Hop   | Mosaic                 | 25 g   | 2 day(s) | 12.6 %     |

|         |            |      |          |        |
|---------|------------|------|----------|--------|
| Dry Hop | Citra      | 25 g | 2 day(s) | 12.6 % |
| Dry Hop | Cascade PL | 25 g | 2 day(s) | 7.8 %  |
| Dry Hop | Amarillo   | 25 g | 2 day(s) | 7.8 %  |

### Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 200 ml | Fermentis  |

### Extras

| Type   | Name      | Amount | Use for | Time   |
|--------|-----------|--------|---------|--------|
| Fining | Compac Cg | 1 g    | Boil    | 10 min |