

## takie se#

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **34**
- SRM **5.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **28.9 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 liter(s)**

### Steps

- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **19.6 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **28.9 liter(s)** of wort

### Fermentables

| Type    | Name                       | Amount         | Yield | EBC |
|---------|----------------------------|----------------|-------|-----|
| Grain   | Strzegom Pilzneński        | 3.6 kg (56.3%) | 80 %  | 4   |
| Grain   | Strzegom Monachijski typ I | 1 kg (15.6%)   | 79 %  | 16  |
| Grain   | Strzegom Wiedeński         | 1 kg (15.6%)   | 79 %  | 10  |
| Adjunct | Pszenica niestodowana      | 0.8 kg (12.5%) | 75 %  | 3   |

### Hops

| Use for             | Name         | Amount | Time     | Alpha acid |
|---------------------|--------------|--------|----------|------------|
| Boil                | Equinox      | 20 g   | 30 min   | 13.6 %     |
| Aroma (end of boil) | Enigma (AUS) | 10 g   | 5 min    | 16.4 %     |
| Aroma (end of boil) | Amarillo     | 10 g   | 5 min    | 7.1 %      |
| Whirlpool           | Chinook      | 20 g   | 20 min   | 12.8 %     |
| Whirlpool           | Equinox      | 10 g   | 20 min   | 13.6 %     |
| Dry Hop             | Enigma (AUS) | 20 g   | 5 day(s) | 16.4 %     |
| Dry Hop             | Citra        | 30 g   | 5 day(s) | 12.5 %     |
| Dry Hop             | Chinook      | 20 g   | 5 day(s) | 12.8 %     |

## Yeasts

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