

## #3.1

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **50**
- SRM **6.7**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.1 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **24.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **24.8 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 2 kg (35.7%)   | 80 %  | 4   |
| Grain | Strzegom Pale Ale   | 2 kg (35.7%)   | 79 %  | 6   |
| Grain | Pszeniczny          | 0.6 kg (10.7%) | 83 %  | 4   |
| Grain | Karmelowy Czerwony  | 0.5 kg (8.9%)  | 75 %  | 60  |
| Grain | Płatki owsiane      | 0.5 kg (8.9%)  | 85 %  | 3   |

### Hops

| Use for | Name       | Amount | Time     | Alpha acid |
|---------|------------|--------|----------|------------|
| Boil    | lunga      | 20 g   | 60 min   | 11 %       |
| Boil    | Citra      | 15 g   | 15 min   | 13.5 %     |
| Boil    | lunga      | 10 g   | 15 min   | 11 %       |
| Boil    | Amarillo   | 12 g   | 5 min    | 8.8 %      |
| Boil    | lunga      | 20 g   | 5 min    | 11 %       |
| Boil    | Citra      | 15 g   | 3 min    | 13.5 %     |
| Dry Hop | lunga      | 25 g   | 7 day(s) | 11 %       |
| Dry Hop | cascade pl | 25 g   | 7 day(s) | 5.2 %      |

### Yeasts

| Name  | Type | Form  | Amount | Laboratory |
|-------|------|-------|--------|------------|
| US-05 | Ale  | Slant | 300 ml | Fermentis  |