

## B quadrangular

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **26**
- SRM **4.8**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **3 %**
- Size with trub loss **42 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **47 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.38 liter(s) / kg**
- Mash size **35 liter(s)**
- Total mash volume **45.3 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **35 liter(s)** of strike water to **73.9C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **22.4 liter(s)** of **76C** water or to achieve **47 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Pilzneński                 | 9 kg (87%)     | 81 %  | 4   |
| Grain | Strzegom Monachijski typ I | 0.9 kg (8.7%)  | 79 %  | 16  |
| Grain | Karmelowy Jasny 30EBC      | 0.45 kg (4.3%) | 75 %  | 30  |

### Hops

| Use for             | Name       | Amount | Time     | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil                | Centennial | 60 g   | 60 min   | 5 %        |
| Aroma (end of boil) | Cascade    | 60 g   | 15 min   | 3 %        |
| Aroma (end of boil) | Cascade    | 60 g   | 5 min    | 3 %        |
| Dry Hop             | Cascade    | 60 g   | 3 day(s) | 3 %        |
| Dry Hop             | Citra      | 60 g   | 3 day(s) | 12 %       |
| Dry Hop             | Mosaic     | 30 g   | 3 day(s) | 10 %       |
| Boil                | Citra      | 6 g    | 30 min   | 12 %       |

### Yeasts

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

|             |     |     |        |        |
|-------------|-----|-----|--------|--------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |
|-------------|-----|-----|--------|--------|