

## Target

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **28**
- SRM **5.7**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

## Steps

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

## Mash step by step

- Heat up **15.6 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                  | Amount         | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Pilzneński            | 2.5 kg (48.1%) | 81 %  | 4   |
| Grain | Monachijski           | 1 kg (19.2%)   | 80 %  | 16  |
| Grain | Strzegom Wiedeński    | 1 kg (19.2%)   | 79 %  | 10  |
| Grain | Karmelowy Jasny 30EBC | 0.2 kg (3.8%)  | 75 %  | 30  |
| Grain | Płatki owsiane        | 0.5 kg (9.6%)  | 85 %  | 3   |

## Hops

| Use for | Name   | Amount | Time   | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil    | Target | 15 g   | 60 min | 10 %       |
| Boil    | Target | 10 g   | 20 min | 10 %       |
| Boil    | Target | 25 g   | 5 min  | 10 %       |

## Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 100 ml | Safale     |