

# 1

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **20**
- SRM **4.6**
- Style **English IPA**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name               | Amount        | Yield | EBC |
|-------|--------------------|---------------|-------|-----|
| Grain | Strzegom Karmel 30 | 0.5 kg (9.1%) | 75 %  | 30  |
| Grain | Pilzneński         | 5 kg (90.9%)  | 81 %  | 4   |

## Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Marynka           | 15 g   | 60 min | 10 %       |
| Aroma (end of boil) | Lublin (Lubelski) | 10 g   | 10 min | 4 %        |
| Aroma (end of boil) | Citra             | 10 g   | 10 min | 12 %       |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11 g   | ---        |