

# Polish PALE ALE

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **50**
- SRM **4.3**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## 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 **27.5 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount       | Yield  | EBC |
|-------|----------------------------|--------------|--------|-----|
| Grain | BESTMALZ - Bestt Pale Ale  | 4 kg (80%)   | 80.5 % | 6   |
| Grain | BESTMALZ - Best Vienna     | 0.5 kg (10%) | 80.5 % | 9   |
| Grain | BESTMALZ - Best Wheat Malt | 0.5 kg (10%) | 82 %   | 4   |

## Hops

| Use for             | Name          | Amount | Time   | Alpha acid |
|---------------------|---------------|--------|--------|------------|
| Boil                | lunga-szyszka | 40 g   | 60 min | 11 %       |
| Aroma (end of boil) | izabella      | 25 g   | 5 min  | 5 %        |
| Aroma (end of boil) | Sybilla       | 65 g   | 5 min  | 3.5 %      |
| Whirlpool           | izabella      | 25 g   | ---    | 5 %        |
| Whirlpool           | Sybilla       | 65 g   | ---    | 3.5 %      |

## Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 200 ml | Fermentis  |