

## pale ALE B 3

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **21**
- SRM **4.7**
- Style **Irish Red Ale**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

### Steps

- Temp **52 C**, Time **20 min**
- Temp **66 C**, Time **50 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **50 min** at **66C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

| Type  | Name                           | Amount       | Yield | EBC |
|-------|--------------------------------|--------------|-------|-----|
| Grain | PALE ALE/PILS<br>BYDGOSZCZ     | 5 kg (83.3%) | 82 %  | 4.8 |
| Grain | MONACHIJSKI typ I<br>BYDGOSZCZ | 1 kg (16.7%) | 80 %  | 16  |

### Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | perle   | 25 g   | 60 min | 7.4 %      |
| Aroma (end of boil) | szbilla | 25 g   | 15 min | 4.3 %      |

### Yeasts

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