

Dożynkowe Pale Ale

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **54**
- SRM **7.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.35 liter(s) / kg**
- Mash size **24.5 liter(s)**
- Total mash volume **31.8 liter(s)**

Steps

- Temp **67 C**, Time **75 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **24.5 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **10.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|-----------------|-------|-----|
| Grain | Pilzneński | 2.4 kg (32.9%) | 81 % | 4 |
| Grain | Strzegom Monachijski typ II | 1.5 kg (20.5%) | 79 % | 25 |
| Grain | Viking Pale Ale malt | 1.2 kg (16.4%) | 80 % | 6 |
| Grain | Płatki owsiane | 0.75 kg (10.3%) | 60 % | 3 |
| Grain | Strzegom Wiedeński | 0.5 kg (6.8%) | 79 % | 10 |
| Grain | Pszeniczny | 0.4 kg (5.5%) | 85 % | 4 |
| Grain | Abbey Malt Weyermann | 0.3 kg (4.1%) | 75 % | 45 |
| Grain | Carabody | 0.25 kg (3.4%) | 75 % | 8 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Hallertau Blanc | 20 g | 60 min | 8.4 % |
| Boil | Cascade | 20 g | 60 min | 5.5 % |
| Boil | Cascade | 80 g | 5 min | 5.5 % |
| Boil | Mandarina Bavaria | 50 g | 5 min | 8.9 % |
| Boil | Hallertau Blanc | 50 g | 5 min | 8.4 % |

| | | | | |
|------|-----------------|------|-------|-------|
| Boil | Hallertau Blanc | 30 g | 5 min | 8.4 % |
|------|-----------------|------|-------|-------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------|------|------|--------|-----------------|
| Mangrove Jack's M15 Empire Ale | Ale | Dry | 20 g | Mangrove Jack's |
| Safale S-04 | Ale | Dry | 20 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------|--------|---------|--------|
| Water Agent | gips | 10 g | Mash | 60 min |
| Fining | whirlfloc | 2 g | Boil | 5 min |