

# 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 %
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### 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