

# Drwalskie Pale Ale

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- Gravity **13.1 BLG**
- ABV ---
- IBU **38**
- SRM **9.9**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **33.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **26.1 liter(s)**

## Steps

- Temp **51 C**, Time **15 min**
- Temp **63 C**, Time **20 min**
- Temp **73 C**, Time **20 min**
- Temp **77 C**, Time **5 min**

## Mash step by step

- Heat up **20.3 liter(s)** of strike water to **55.4C**
- Add grains
- Keep mash **15 min** at **51C**
- Keep mash **20 min** at **63C**
- Keep mash **20 min** at **73C**
- Keep mash **5 min** at **77C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **33.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (86.2%)	79 %	6
Grain	Strzegom pszeniczny	0.5 kg (8.6%)	81 %	6
Grain	Strzegom Karmel 150	0.3 kg (5.2%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	90 min	15.5 %
Boil	Saaz (Czech Republic)	20 g	15 min	4.5 %
Boil	Sybilla	5 g	15 min	3.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale