

# Dzień niepodległości

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **37**
- SRM **7.8**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **19.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **29.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (76.9%)	79 %	6
Grain	Strzegom Monachijski typ I	0.75 kg (11.5%)	79 %	16
Grain	Karmelowy Czerwony	0.75 kg (11.5%)	75 %	59

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	30 g	40 min	12.3 %
Boil	Citra	20 g	10 min	12.3 %
Whirlpool	Citra	100 g	15 min	12.3 %
Dry Hop	Cita	50 g	5 day(s)	12.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	15 g	Fermentis