

# Świąteczna ipa

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **31**
- SRM **9.9**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.2 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 **64 C**, Time **10 min**
- Temp **70 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **19.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **10 min** at **64C**
- Keep mash **60 min** at **70C**
- Keep mash **0 min** at **76C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **26.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) Bel	6 kg (92.3%)	80 %	6
Grain	Strzegom Karmel 150	0.5 kg (7.7%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	11 %
Boil	Cascade PL	30 g	20 min	5.2 %
Boil	Citra	30 g	5 min	12 %
Whirlpool	Citra	20 g	---	12 %
Whirlpool	Cascade PL	20 g	---	5.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us05	Ale	Dry	11 g	---