

# Świąteczne z jabłkiem

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **10**
- SRM **5.9**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **19.2 liter(s)**

## Steps

- Temp **68 C**, Time **70 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **2.4 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1 kg (31.3%)	80 %	4
Grain	Monachijski	1 kg (31.3%)	80 %	16
Grain	carabody	0.2 kg (6.3%)	70 %	8
Grain	Strzegom Pszeniczny	1 kg (31.3%)	81 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	10 g	30 min	7.1 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Flavor	Sok NFC pasteryzowany jablkowy	50000 g	Primary	10 day(s)
Flavor	Cynamon (laska)	2 g	Boil	5 min

Flavor	Aromat jabłkowy	1 g	Bottling	---
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