

# xmas pszenica

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **10**
- SRM **11.9**
- Style **Classic Rauchbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **21.8 liter(s)**

## Steps

- Temp **44 C**, Time **20 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **3 min**

## Mash step by step

- Heat up **17 liter(s)** of strike water to **47.4C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **3 min** at **78C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Wheat Malt	2.5 kg (51.5%)	85 %	5
Grain	Weyermann - Pilsner Malt	1.5 kg (30.9%)	81 %	5
Grain	Weyermann - Carawheat	0.25 kg (5.2%)	77 %	97
Grain	Strzegom Monachijski typ II	0.5 kg (10.3%)	79 %	22
Grain	Chocolate Malt (UK)	0.1 kg (2.1%)	73 %	887

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	17 g	60 min	5.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Liquid	25 ml	Fermentum Mobile