

Podwędzane żyto

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **14**
- SRM **13.9**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.4 liter(s)**
- Total mash volume **24.5 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **18.4 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	2.5 kg (40.8%)	85 %	8
Grain	Weyermann - Smoked Malt	1 kg (16.3%)	81 %	6
Grain	Strzegom Monachijski typ I	1 kg (16.3%)	79 %	16
Grain	Pilzneński	0.78 kg (12.7%)	81 %	4
Grain	Weyermann - Pale Wheat Malt	0.5 kg (8.2%)	85 %	5
Grain	Caraaroma	0.3 kg (4.9%)	78 %	400
Grain	Carafa II	0.05 kg (0.8%)	70 %	812

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Mandarina Bavaria	10 g	60 min	10 %
Boil	Mandarina Bavaria	10 g	15 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
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wb-06	Wheat	Dry	11 g	---
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