

## spontaniczne

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **24**
- SRM **3.6**
- Style **Weizen/Weissbier**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **4 %**
- Size with trub loss **25 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **28 liter(s)**

### Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **21.4 liter(s)**

### Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **28 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszoniczny	1.58 kg (29.5%)	85 %	4
Grain	Strzegom Pilzneński	3.72 kg (69.5%)	80 %	4
Grain	Strzegom Karmel 30	0.05 kg (0.9%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Extra Styrian Dana	20 g	50 min	9 %
Boil	Styrian Golding	20 g	15 min	3 %
Aroma (end of boil)	Styrian Golding	18 g	0 min	3 %
Whirlpool	Cascade PL	40 g	15 min	5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	11 g	Safbrew