

## 3 strony świata

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- Gravity **13.4 BLG**
- ABV ---
- IBU **41**
- SRM **3.9**
- Style **American Wheat or Rye Beer**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **22.8 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.9 liter(s)**
- Total mash volume **14.5 liter(s)**

### Steps

- Temp **46 C**, Time **20 min**
- Temp **51 C**, Time **10 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **10 min**

### Mash step by step

- Heat up **10.9 liter(s)** of strike water to **50.3C**
- Add grains
- Keep mash **20 min** at **46C**
- Keep mash **10 min** at **51C**
- Keep mash **60 min** at **63C**
- Keep mash **10 min** at **72C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	2.1 kg (50.8%)	85 %	4
Grain	Strzegom Pale Ale	1 kg (24.2%)	79 %	6
Grain	Briess - Carapils Malt	0.5 kg (12.1%)	74 %	3
Grain	Zakwaszający	0.03 kg (0.7%)	75 %	3
Adjunct	Płatki pszenne	0.5 kg (12.1%)	--- %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sorachi Ace	10 g	60 min	12.2 %
Boil	Centennial	20 g	20 min	8.5 %
Boil	Pacifica (NZ)	20 g	5 min	4.8 %
Boil	Centennial	20 g	5 min	8.5 %
Boil	Sorachi Ace	20 g	5 min	12.2 %
Dry Hop	Sorachi Ace	20 g	7 day(s)	12.2 %
Dry Hop	Pacifica (NZ)	10 g	7 day(s)	4.8 %
Dry Hop	Sorachi Ace	20 g	3 day(s)	12.2 %

Dry Hop	Centennial	10 g	3 day(s)	8.5 %
Dry Hop	Pacifica (NZ)	10 g	3 day(s)	4.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Liquid	30 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Water Agent	chlorek wapnia	5 g	Mash	---
Water Agent	gips piwowarski	5 g	Mash	---