

Żytnie

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **20**
- SRM **12.8**
- Style **Specialty Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.9 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **47 C**, Time **40 min**
- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **79 C**, Time **1 min**

Mash step by step

- Heat up **17.9 liter(s)** of strike water to **50.8C**
- Add grains
- Keep mash **40 min** at **47C**
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **1 min** at **79C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	2 kg (39.2%)	85 %	8
Grain	Strzegom Pilzneński	1.6 kg (31.4%)	80 %	4
Grain	Strzegom Monachijski typ II	0.8 kg (15.7%)	79 %	22
Grain	Strzegom Karmel 300	0.2 kg (3.9%)	70 %	299
Grain	Strzegom Karmel 600	0.1 kg (2%)	68 %	601
Grain	Pszeniczny	0.4 kg (7.8%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	20 g	70 min	5 %
Boil	Perle	20 g	30 min	5 %
Boil	Perle	5 g	10 min	5 %

Yeasts

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Name	Type	Form	Amount	Laboratory
Fermentis Safbrew w	Ale	Dry	11.5 g	Safale