

## Z żytem

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **47**
- SRM **3.6**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.6 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

### Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **17.5 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **29.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (80%)	81 %	4
Grain	Żytni	1 kg (20%)	85 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Equinox	20 g	60 min	14.5 %
Boil	Equinox	20 g	20 min	14.5 %
Boil	Equinox	10 g	5 min	14.5 %
Dry Hop	Citra	30 g	4 day(s)	12 %
Dry Hop	Azacca	30 g	4 day(s)	11 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa Belgian Fruit Spicy Ale Yeast	Ale	Dry	10 g	Gozdawa