

## 51. Żytko

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **48**
- SRM **4.3**
- Style **Rye IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **27.6 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytńi	1 kg (18.2%)	85 %	8
Grain	Pilzneński	4 kg (72.7%)	80 %	4
Grain	Viking Wheat Malt	0.5 kg (9.1%)	83 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	10 %
Boil	Cascade	10 g	20 min	6 %
Aroma (end of boil)	Cascade	10 g	10 min	6 %
Whirlpool	Cascade	10 g	0 min	6 %
Dry Hop	Cascade	20 g	5 day(s)	6 %
Boil	Marynka	20 g	60 min	5.7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US 05	Ale	Slant	250 ml	---