

# Pierwsze Żytko

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **49**
- SRM **5.4**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **27.6 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **20.7 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3.1 kg (44.9%)	81 %	5
Grain	Żytni	2.6 kg (37.7%)	85 %	8
Grain	Weyermann - Pale Ale Malt	1.2 kg (17.4%)	85 %	7

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	27 g	60 min	13.5 %
Boil	Lublin (Lubelski)	50 g	60 min	4 %
Aroma (end of boil)	Amarillo	25 g	1 min	9.5 %
Dry Hop	Amarillo	25 g	7 day(s)	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Water Agent	kswas mlekowy	5 g	Mash	85 min
Water Agent	kwas mlekowy	2 g	Boil	1 min