

# Żytni lager hybrydowy

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **19**
- SRM **3.9**

## Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **32.9 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

## Steps

- Temp **62 C**, Time **50 min**
- Temp **70 C**, Time **20 min**

## Mash step by step

- Heat up **19.3 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **50 min** at **62C**
- Keep mash **20 min** at **70C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **32.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.5 kg (63.6%)	80 %	4
Grain	Żytni	1.5 kg (27.3%)	85 %	8
Grain	Strzegom Wiedeński	0.5 kg (9.1%)	79 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Książęcy	25 g	65 min	8.3 %
Dry Hop	Książęcy	25 g	0 day(s)	8.3 %
Whirlpool	Cascade PL	100 g	0 min	7.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
nova lager	Lager	Dry	10 g	---