

# sour ale z owocami

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **30**
- SRM **4.7**

## Batch size

- Expected quantity of finished beer **15.5 liter(s)**
- Trub loss **0 %**
- Size with trub loss **15.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **14 %/h**
- Boil size **22.6 liter(s)**

## Mash information

- Mash efficiency **68 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.1 liter(s)**
- Total mash volume **25.9 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **77 C**, Time **5 min**

## Mash step by step

- Heat up **20.1 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **5 min** at **77C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **22.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (52.2%)	81 %	4
Grain	Strzegom Pale Ale	1 kg (17.4%)	79 %	6
Grain	Oats, Flaked	0.5 kg (8.7%)	80 %	2
Grain	Acid Malt	0.25 kg (4.3%)	58.7 %	6
Grain	Pszeniczny	1 kg (17.4%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	50 g	50 min	4 %
Whirlpool	t90	50 g	5 min	13.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	Fermentis
L.plantarum	Ale	Culture	8.4 g	---

## Extras

Type	Name	Amount	Use for	Time
Flavor	czeresnie	1100 g	Secondary	9 day(s)

Flavor	borowki	330 g	Secondary	9 day(s)
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## Notes

- zakwaszanie: 18 kapsulek sanprobi ibs na 23 litry 46h  
owoce: na cicha na 7 dni  
wysladzanie:76-78\*C  
*Jul 4, 2018, 4:43 PM*