

# Pear Sour Ale

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **32**
- SRM **3.5**
- Style **Fruit Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **5 %/h**
- Boil size **24.1 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **40 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.5 kg (55.6%)	80 %	4
Grain	Pszeniczny	1.5 kg (33.3%)	85 %	4
Grain	Słód owsiany Fawcett	0.5 kg (11.1%)	61 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	El Dorado	10 g	60 min	11.7 %
Aroma (end of boil)	El Dorado	10 g	0 min	11.7 %
Whirlpool	Columbus/Tomahawk/Zeus	10 g	25 min	13.6 %
Whirlpool	El Dorado	30 g	25 min	11.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Lactobacillus Plantarum	Ale	Dry	10 g	---

Fermentis K-97	Ale	Dry	11.5 g	Fermentis Division of S.I.Lesaffre
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### Extras

Type	Name	Amount	Use for	Time
Flavor	Laktoza	200 g	Boil	20 min
Flavor	Pulpa z gruszki	2000 g	Secondary	10 day(s)
Flavor	Aromat gruszkowy	5 g	Bottling	---

### Notes

- Kwas mlekowy - 1 ml do zacierania, 1.5 ml na 10 litrów do wystadzania  
Dodatek siarczanu wapnia 0,3g na 10 litrów do zacierania i 0,7g do wystadzania na 10 litrów  
Dodatek chlorku wapnia 1g na 10 litrów do zacierania i 2g do wystadzania na 10 litrów  
Dodatek węglanu wapnia 0,25g do zacierania i 0,5g do wystadzania na 10 litrów  
Dodatek 0,20g siarczanu magnezu do zacierania i 0,80g do wystadzania na 10 litrów  
Dodatek bakterii do brzeczki w temp. 30'C. Rozwój przez 24h, sprawdzenie poziomu pH.  
*Aug 31, 2024, 1:46 AM*