

# Sour IPA

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **43**
- SRM **3.9**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **90 min**
- Evaporation rate **5 %/h**
- Boil size **25.8 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **25.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (54.5%)	81 %	4
Grain	Pszeniczny	1.5 kg (27.3%)	85 %	4
Grain	Słód owsiany Fawcett	1 kg (18.2%)	61 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	13.6 %
Aroma (end of boil)	Wai-iti	5 g	0 min	4.1 %
Aroma (end of boil)	Riwaka	5 g	0 min	4.3 %
Whirlpool	Columbus/Tomahawk/Zeus	15 g	30 min	13.6 %
Whirlpool	Huell Melon	20 g	20 min	5.7 %
Whirlpool	Wai-iti	20 g	20 min	4.1 %
Whirlpool	Riwaka	20 g	20 min	4.3 %
Dry Hop	Wai-iti	25 g	3 day(s)	4.1 %
Dry Hop	Riwaka	25 g	3 day(s)	4.3 %

Dry Hop	Huell Melon	30 g	3 day(s)	5.7 %
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## Yeasts

Name	Type	Form	Amount	Laboratory
WildBrew Philly Sour	Ale	Dry	11 g	LALLEMAND Inc.

## Notes

- Kwas mlekowy - 1 ml do zacierania, 1.5 ml na 10 litrów do wysładzania  
Dodatek siarczanu wapnia 0,3g na 10 litrów do zacierania i 0,7g do wysładzania na 10 litrów  
Dodatek chlorku wapnia 1g na 10 litrów do zacierania i 2g do wysładzania na 10 litrów  
Dodatek węglanu wapnia 0,25g do zacierania i 0,5g do wysładzania na 10 litrów  
Dodatek 0,20g siarczanu magnezu do zacierania i 0,80g do wysładzania na 10 litrów  
Dodatek witaminy C podczas chmielenia na zimno (4 g)  
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