

## sour saison

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **32**
- SRM **3.5**
- Style **Saison**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.7 liter(s)**
- Total mash volume **17.6 liter(s)**

### Steps

- Temp **65 C**, Time **70 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **13.7 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **70 min** at **65C**
- Keep mash **5 min** at **77C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **19.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (76.9%)	81 %	4
Grain	Oats, Flaked	0.4 kg (10.3%)	80 %	2
Grain	Pszenica niestodowana	0.5 kg (12.8%)	75 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	10 g	60 min	13.1 %
Boil	Amarillo	10 g	60 min	8.8 %
Whirlpool	Simcoe	15 g	0 min	13.1 %
Whirlpool	Amarillo	15 g	0 min	8.8 %
Dry Hop	Simcoe	25 g	2 day(s)	13.1 %
Dry Hop	Amarillo	25 g	2 day(s)	8.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M29 French Saison	Ale	Dry	10 g	Mangrove Jack's
L.plantarum	Ale	Culture	6.3 g	---

## Extras

Type	Name	Amount	Use for	Time
Flavor	skorka słodkiej pomarańczy	20 g	Boil	10 min

## Notes

- zakwaszanie: 13 kapsulek sanprobi ibs na 15 litrow piwska na 44h  
*Mar 13, 2018, 11:03 PM*