

Sour&grape wheat

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **23**
- SRM **4.4**
- Style **Specialty Beer**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6 liter(s)**
- Total mash volume **8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **1 min** at **78C**
- Sparge using **11.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	2 kg (40%)	85 %	4
Liquid Extract	sok winogronowy	3 kg (60%)	10 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	8 g	60 min	13.5 %
Whirlpool	Magnum	10 g	5 min	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	200 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Flavor	lactobacillus plantarum v299	2 g	Primary	2 day(s)