

# PPPP

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **19**
- SRM **3.9**
- Style **Weizen/Weissbier**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **44 C**, Time **20 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	2 kg (40%)	81 %	5
Grain	Weyermann - Pale Wheat Malt	3 kg (60%)	85 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Tradition	30 g	60 min	5 %
Aroma (end of boil)	Hallertau Tradition	20 g	10 min	5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand - LalBrew German Wheat-Sytle Ale	Wheat	Dry	11 g	Lallemand

## Notes

- Łuska ryżowa sterylizowana - 200 g - do filtracji  
*Jan 30, 2022, 9:19 AM*