

# German Pils WKPD 2023

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **39**
- SRM **4.3**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **23.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **14.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	3.3 kg (70.2%)	80.5 %	4
Grain	BESTMALZ - Best Vienna	1 kg (21.3%)	80.5 %	9
Grain	Weyermann - Carapils	0.4 kg (8.5%)	78 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	80 min	12.1 %
Boil	Tettnanger	20 g	40 min	2.9 %
Boil	Magnum	5 g	40 min	12.1 %
Boil	Tettnanger	20 g	15 min	2.9 %
Aroma (end of boil)	Tettnanger	10 g	5 min	2.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Liquid	50 ml	Fermentum Mobile

FM30 Bohemska rapsodia	Lager	Liquid	50 ml	Fermentum Mobile
------------------------	-------	--------	-------	------------------

## Notes

- Woda RO:kran 1:1  
Zacieranie 18.65 L - kwas mlekowy 3 ml  
Wystadzanie 12.3 - kwas mlekowy 3 ml  
*Aug 3, 2023, 7:32 PM*