

# Kolsh #1 - Browar na Wyżynie

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **20**
- SRM **4**
- Style **Kölsch**

## Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **6 %**
- Size with trub loss **20.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **11 %/h**
- Boil size **22.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **12.6 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **22.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	pilzneński Viking Malt	4 kg (95.2%)	80 %	5
Grain	pszeniczny Viking Malt	0.2 kg (4.8%)	81 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle (DE) - granulát	10 g	60 min	8 %
Boil	Perle	20 g	15 min	8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM42 Stare Nadreńskie	Ale	Liquid	1000 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Water Agent	chlerek sodu	2 g	Mash	70 min
Water Agent	siarczan magnezu	2 g	Mash	70 min

Water Agent	kwask mlekowy 80%	5 g	Mash	70 min
Water Agent	woda demineralizowana	20000 g	Mash	70 min
Fining	mech irlandzki	3 g	Boil	15 min

## Notes

- Blend wody 70% demineralizowana 30% kranówka

Profil wody:

Ca+2 Mg+2 Na+ Cl- SO4-2 Alkalinity Residual  
59.0 3.9 31.8 51.5 50.8 26.1 -18.2

SO42-/Cl- ratio: 1.0 Balanced  
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