

# Mikrus

- Gravity **8.3 BLG**
- ABV **3.2 %**
- IBU **16**
- SRM **38**
- Style **Oatmeal Stout**

## 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 **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **14.2 liter(s)**
- Total mash volume **17.8 liter(s)**

## Steps

- Temp **70 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **14.2 liter(s)** of strike water to **76.3C**
- Add grains
- Keep mash **60 min** at **70C**
- Keep mash **5 min** at **76C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Vienna Malt	1.8 kg (50.7%)	81 %	8
Grain	Płatki owsiane	0.4 kg (11.3%)	85 %	3
Grain	Weyermann Jęczmień palony	0.25 kg (7%)	55 %	985
Grain	Czekoladowy	0.25 kg (7%)	60 %	788
Grain	Caraaroma	0.25 kg (7%)	78 %	400
Grain	Simpsons - Crystal Rye	0.1 kg (2.8%)	73 %	177
Grain	Żytni	0.25 kg (7%)	85 %	8
Grain	Barwiący	0.25 kg (7%)	55 %	1300

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	5 g	60 min	15.5 %
Boil	Fuggles	25 g	15 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Flavor	Laktoza	400 g	Boil	15 min