

# ris

- Gravity **26.2 BLG**
- ABV **12.3 %**
- IBU **86**
- SRM **67.4**

## Batch size

- Expected quantity of finished beer **21.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.6 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **29.6 liter(s)**

## Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **2.6 liter(s) / kg**
- Mash size **39 liter(s)**
- Total mash volume **54 liter(s)**

## Steps

- Temp **67 C**, Time **105 min**
- Temp **79 C**, Time **10 min**

## Mash step by step

- Heat up **39 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **105 min** at **67C**
- Keep mash **10 min** at **79C**
- Sparge using **5.6 liter(s)** of **76C** water or to achieve **29.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	9 kg (60%)	80 %	7
Grain	Płatki owsiane	3 kg (20%)	85 %	3
Grain	Weyermann Caramunich 3	1 kg (6.7%)	76 %	150
Grain	Carafa II	1 kg (6.7%)	70 %	812
Grain	Jęczmień palony	1 kg (6.7%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	50 g	60 min	13.5 %
Boil	Magnum	50 g	30 min	13.5 %
Boil	Mosaic	50 g	15 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
fm52	Ale	Slant	1 ml	---

## Notes

- wysładzać do 21  
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