

## figura retoryczna (kolsch)

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **30**
- SRM **2.9**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.2 liter(s)**
- Boil time **40 min**
- Evaporation rate **10 %/h**
- Boil size **18.9 liter(s)**

### Mash information

- Mash efficiency **88 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.9 liter(s)**
- Total mash volume **13.2 liter(s)**

### Steps

- Temp **64 C**, Time **10 min**
- Temp **70 C**, Time **50 min**

### Mash step by step

- Heat up **9.9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **10 min** at **64C**
- Keep mash **50 min** at **70C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **18.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (90.9%)	80 %	2.5
Grain	viking malt caramel pale	0.3 kg (9.1%)	77 %	8

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	21 g	35 min	12 %
Dry Hop	Galaxy	20 g	5 day(s)	15 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11 g	Fermentis