

## #4 Kölsch JJ

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **20**
- SRM **3.5**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **9.375 liter(s) / kg**
- Mash size **42.2 liter(s)**
- Total mash volume **46.7 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**

### Mash step by step

- Heat up **42.2 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **-12.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (88.9%)	80 %	4
Grain	Strzegom Pszeniczny	0.5 kg (11.1%)	81 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	50 g	40 min	2.8 %
Boil	Lublin (Lubelski)	50 g	10 min	2.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa Pure Ale Yeast 7	Ale	Dry	10 g	---

### Notes

- temp fermentacji 17-18 stopni  
po 8 dniach przelane na cichą  
refermentacja 2g cukru na butelkę, za mało trzeba zwiększyć  
drożdże dały radę  
Bardzo dobre piwo do powtarzania  
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