

kylsz dwa kropka zero

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **26**
- SRM **3.2**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.1 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.3 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.8 kg (88.4%)	80 %	4
Grain	zakwaszający	0.1 kg (2.3%)	75 %	4
Grain	Spelt castle malting orkiszowy	0.4 kg (9.3%)	81 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	18 g	60 min	12.6 %
Aroma (end of boil)	Hallertau Spalt Select	35 g	5 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Kolsch	Ale	Liquid	100 ml	---