

## chełmek kylsz 2

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **24**
- SRM **3.4**
- Style **Kölsch**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **9.5 liter(s)**
- Total mash volume **12.2 liter(s)**

### Steps

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

### Mash step by step

- Heat up **9.5 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **8.4 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (92.6%)	81 %	4
Grain	Pszeniczny	0.2 kg (7.4%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	10 g	60 min	11 %
Aroma (end of boil)	Tettnanger	30 g	5 min	2.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
lallemand koln	Ale	Dry	11.5 g	---