

chełmek kylsz

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **31**
- SRM **3.4**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **7.7 liter(s)**
- Total mash volume **9.9 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 **7.7 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 **7.2 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.1 kg (95.5%)	81 %	4
Grain	Pszeniczny	0.1 kg (4.5%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	10 g	60 min	11 %
Aroma (end of boil)	Hallertau Mittelfruh	30 g	5 min	4.1 %

Yeasts

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