

kolsz

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **26**
- SRM **3.4**
- Style **Kölsch**

Batch size

- Expected quantity of finished beer **14.5 liter(s)**
- Trub loss **10 %**
- Size with trub loss **17.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.8 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **16.7 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **13 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **20.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.2 kg (86.5%)	80 %	4
Grain	Pszeniczny	0.5 kg (13.5%)	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	9.5 %
Aroma (end of boil)	Sybilla	20 g	10 min	5.7 %
Dry Hop	Sybilla	50 g	4 day(s)	5.7 %

Extras

Type	Name	Amount	Use for	Time
Flavor	Pulpa z mango	1350 g	Secondary	4 day(s)