

# letni kwas

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- Gravity **10 BLG**
- ABV **4 %**
- IBU ---
- SRM **2.9**
- Style **Kölsch**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **11.2 liter(s)**
- Total mash volume **14.7 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**

## Mash step by step

- Heat up **11.2 liter(s)** of strike water to **68.6C**
- Add grains
- Keep mash **60 min** at **62C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.5 kg (92.1%)	80 %	4
Liquid Extract	WES ekstrakt słodowy jasny	0.3 kg (7.9%)	80 %	---

## Extras

Type	Name	Amount	Use for	Time
Flavor	kombucha	200 g	Bottling	---
Flavor	kardamon	2 g	Boil	10 min