

# kolońskie Grudziądz

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **23**
- SRM **4.2**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **26.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **66 C**, Time **30 min**
- Temp **70 C**, Time **15 min**
- Temp **78 C**, Time **30 min**

## Mash step by step

- Heat up **13.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **15 min** at **70C**
- Keep mash **30 min** at **78C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Acidulated Malt	4 kg (88.9%)	80 %	6
Grain	Weyermann pszeniczny jasny	0.5 kg (11.1%)	80 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	30 g	60 min	5.5 %
Boil	Tradition	20 g	10 min	5.5 %
Dry Hop	Tradition	10 g	5 day(s)	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11.5 g	Fermentis