

# Single Hop v 3.0 + trawa cytrynowa na Wyeast 2565 Kölsch

- Gravity **16.4 BLG**
- ABV ---
- IBU **61**
- SRM **5.5**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **23.3 liter(s)**

## Steps

- Temp **55 C**, Time **10 min**
- Temp **64 C**, Time **25 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **25 min** at **64C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód pilzneński Premium 2-5 EBC Weyermann	4 kg (68.6%)	81 %	2.5
Grain	Słód Carabelge 30-35 EBC Weyermann	0.33 kg (5.7%)	74 %	32.5
Grain	Słód pszeniczny jasny 3-5 EBC Weyermann	0.5 kg (8.6%)	82 %	3.5
Grain	Słód pale ale 5,5-7,5 EBC Weyermann	1 kg (17.2%)	85 %	6.5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	20 g	60 min	13.5 %
Boil	Citra	20 g	30 min	13.5 %
Boil	Citra	20 g	15 min	13.5 %
Aroma (end of boil)	Citra	40 g	0 min	13.5 %
Dry Hop	Citra	50 g	5 day(s)	13.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Kolsch 2565 z poprzedniej warki	Ale	Liquid	125 ml	Wyeast Labs

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzk	5 g	Boil	15 min
Flavor	trawa cytrynowa	15 g	Boil	15 min