

# lager-kowalski

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- Gravity **14.7 BLG**
- ABV ---
- IBU **89**
- SRM **4.1**

## Batch size

- Expected quantity of finished beer **55 liter(s)**
- Trub loss **5 %**
- Size with trub loss **58.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **70.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **44.7 liter(s)**
- Total mash volume **59.6 liter(s)**

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	12.4 kg (83.2%)	81 %	4
Grain	Weyermann - Carapils	1 kg (6.7%)	78 %	4
Grain	Pilzneński	1.5 kg (10.1%)	81 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	90 g	50 min	12.8 %
Boil	Oktawia	30 g	50 min	7.8 %
Boil	Ella (AUS)	33 g	50 min	14.6 %
Aroma (end of boil)	Oktawia	30 g	10 min	7.8 %
Aroma (end of boil)	Citra	30 g	10 min	12.4 %
Aroma (end of boil)	Yellow Sub	30 g	10 min	6.4 %
Aroma (end of boil)	Vic Secret	30 g	10 min	16.3 %
Dry Hop	citra	30 g	7 day(s)	12.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	23 g	Fermentis