

# karmax

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- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **23**
- SRM **16.1**
- Style **Other Smoked Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **80 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 **22.5 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **50 C**, Time **30 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **15 min**
- Temp **77 C**, Time **1 min**

## Mash step by step

- Heat up **22.5 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **30 min** at **50C**
- Keep mash **30 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **11.1 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Karmel 30	7.5 kg (100%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	60 min	4 %
Boil	Lublin (Lubelski)	30 g	20 min	4 %
Boil	Lublin (Lubelski)	40 g	10 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
w34/70	Lager	Slant	500 ml	---

## Notes

- [franekca.pl.tl](http://franekca.pl.tl)

Za mały garnek do wystudzenia-poraszka.  
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