

# karmel ipa

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- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **70**
- SRM **7.2**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.2 liter(s)**
- Total mash volume **29.6 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **22.2 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (67.6%)	80 %	4
Grain	Karmelowy Jasny 30EBC	2 kg (27%)	75 %	30
Grain	Oats, Flaked	0.4 kg (5.4%)	80 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	15 g	60 min	13.4 %
Boil	magnum	20 g	60 min	11.5 %
Boil	mosaic	30 g	20 min	10.4 %
Boil	citra	20 g	20 min	13.5 %
Boil	citra	15 g	5 min	13.5 %
Boil	mosaic	20 g	5 min	10.4 %
Whirlpool	mosaic	15 g	0 min	10.4 %
Whirlpool	citra	15 g	0 min	13.5 %
Dry Hop	citra	15 g	5 day(s)	13.5 %
Dry Hop	mosaic	15 g	5 day(s)	10.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	---

## Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	10 min