

# Magnum + X09326 2020 ver 1.0

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **53**
- SRM **3.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **18 %**
- Size with trub loss **13 liter(s)**
- Boil time **60 min**
- Evaporation rate **19 %/h**
- Boil size **18 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.2 liter(s)**
- Total mash volume **14.4 liter(s)**

## Steps

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

## Mash step by step

- Heat up **11.2 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **18 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Golden Promise	3 kg (93.8%)	81 %	4
Grain	Weyermann - Zakwaszający	0.2 kg (6.3%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum (2020 - PL)	25 g	60 min	12.7 %
Whirlpool	X09326 (2020 - USA)	50 g	1 min	4.8 %

Hop stand 20 min w 80C.

## Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand - LalBrew Voss Kveik	Ale	Slant	200 ml	Lallemand

## Extras

Type	Name	Amount	Use for	Time
Fining	Whirlflock	1 g	Boil	5 min