

#13 American Lager

- Gravity **9.5 BLG**
- ABV ---
- IBU **43**
- SRM **3**
- Style **Standard American Lager**

Batch size

- Expected quantity of finished beer **45 liter(s)**
- Trub loss **5 %**
- Size with trub loss **47.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **57 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.3 liter(s)**
- Total mash volume **31 liter(s)**

Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **23.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **41.5 liter(s)** of **76C** water or to achieve **57 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------------|-----------------|-------|-----|
| Grain | Weyermann - Bohemian Pilsner Malt | 6 kg (77.4%) | 81 % | 4 |
| Grain | Weyermann - Carapils | 1.75 kg (22.6%) | 78 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|----------|------------|
| Boil | Cascade | 20 g | 60 min | 6.7 % |
| Boil | Citra | 20 g | 30 min | 13.5 % |
| Boil | Cascade | 30 g | 30 min | 6.7 % |
| Boil | Citra | 30 g | 10 min | 13.5 % |
| Boil | Amarillo | 25 g | 10 min | 8 % |
| Dry Hop | Citra | 50 g | 0 day(s) | 13.5 % |
| Dry Hop | Amarillo | 25 g | 0 day(s) | 8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|---------------|-------|-----|------|------------------------------------|
| Saflager S-23 | Lager | Dry | 23 g | Fermentis Division of S.I.Lesaffre |
|---------------|-------|-----|------|------------------------------------|

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | Mech irlandzki | 10 g | Boil | 15 min |