UN Markings for Open-Head Steel Drums (Solids)

How to read the UN performance-oriented packaging mark stamped on a **1A2** removable-head steel drum certified for solids, and what each part of it lets you ship.

u/n	1A2	/	Y	400	/	S	/	26	/	USA	/	M1234	1.2
1	2		3	4		5		6		7		8	9

Example mark. Read it as: a steel open-head drum, tested for Packing Group II and III solids up to 400 kg gross, made in 2026, certified in the USA by registrant M1234, with a 1.2 mm body.

READING THE MARK, FIELD BY FIELD

	FIELD	EXAMPLE	WHAT IT MEANS
1	**UN packaging symbol**	`u/n`	Certifies that the drum design passed UN performance tests. Embossed metal drums may show the capital letters “UN” instead of the circled symbol.
2	**Packaging type code**	`1A2`	**1** = drum · **A** = steel · **2** = removable head (open head). A `1A1` is the non-removable (tight-head) version.
3	**Packing group rating**	`Y`	The highest hazard level the design was tested for: **X** = PG I, II and III · **Y** = PG II and III · **Z** = PG III only.
4	**Maximum gross mass**	`400`	For solids, the highest gross mass in **kilograms** (drum plus contents) the design was tested at. Do not exceed it.
5	**Solids indicator**	`S`	The drum is certified for solids or for inner packagings. It is **not** rated for liquids unless it carries a separate liquids mark.
6	**Year of manufacture**	`26`	The last two digits of the year the drum was made.
7	**Country**	`USA`	The country (state) that authorized the mark, shown with its international vehicle registration code.
8	**Manufacturer / certifier**	`M1234`	The name or registered symbol of the manufacturer or approval agency. In the U.S., symbols are registered with PHMSA.
9	**Metal thickness**	`1.2`	Nominal body thickness in mm, required on metal drums meant for reuse or reconditioning. When the heads are thinner than the body, all three are shown as top–body–bottom, e.g. `1.0–1.2–1.0`.

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DRUM TYPE CODES

CODE	DRUM
1A1	Steel, non-removable head (tight head)
1A2	Steel, removable head (open head)
1B1 / 1B2	Aluminum, non-removable / removable head
1N1 / 1N2	Other metal, non-removable / removable head
1H1 / 1H2	Plastic, non-removable / removable head
1G	Fiber
1D	Plywood

SOLIDS MARK VS. LIQUIDS MARK

SOLIDS **1A2/Y400/S/26/…**
max gross mass (kg) + “S”

LIQUIDS **1A2/Y1.4/150/26/…**
max specific gravity + hydrostatic test pressure (kPa)

MARKING RULES TO CHECK

- **Permanent on the bottom.** Metal drums over 100 L must carry the mark on the bottom head in permanent form, such as embossing. A printed or labeled mark on the side or top is extra.
- **Legible size.** Characters at least **12 mm** tall on packagings over 30 L or 30 kg, and at least **6 mm** on those of 5 to 30 L.
- **The rating is a ceiling.** A **Y** drum may carry PG II or III material, never PG I. An **X** drum covers all three.
- **Stay at or under the tested mass.** Contents plus drum must not exceed the marked kilograms.
- **Close it as tested.** The certification applies only with the closure (ring, bolt or lever lock and gasket) closed per the manufacturer’s instructions.
- **Reconditioned drums** carry an added mark with the reconditioner’s country, an **R** (or **RL** if leakproofness-tested), and the reconditioner’s symbol.

BEFORE YOU FILL: A FOUR-STEP CHECK

1

Find the packing group

Look up your material’s UN number and PG in the Hazardous Materials Table (49 CFR 172.101) or Section 14 of its SDS.

2

Match the rating letter

PG I needs **X**. PG II needs **X** or **Y**. PG III can use **X**, **Y** or **Z**.

3

Weigh the filled drum

Drum, liner and contents together must be at or below the marked kilograms.

4

Confirm form and closure

Solids or inner packagings only under an **S** mark, closed exactly as the maker’s instructions say.

Sourcing UN-rated open-head drums?
Compare steel, plastic and fiber drum suppliers in the Packaura directory, or send one RFQ to vetted manufacturers and distributors.

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