

COLOROBIA®

# Tumblers



GRUPPO  
COLOROBIA

## Tumblers

Recommended uses in tumbler decoration:

		RECOMMENDED	
SERIES	LEAD	TEMPERATURE	FINISH
N SERIES	YES	560-600°	GLOSSY
T SERIES	NO	560-600	GLOSSY
L SERIES	YES	550-600	MATT
U SERIES	NO	550-600°	MATT

N.B. We recommend to always conduct preliminary tests before production. We will not be responsible of any damaged material.  
For any other technical information, check the material safety sheet.

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Basic chemical composition for an indicative range of main colours  
for tumbler decoration:

<b>N SERIES</b>	<b>COLOURS</b>	<b>M<sub>2</sub>O</b>	<b>MO</b>	<b>B<sub>2</sub>O<sub>3</sub></b>	<b>(Zr-Ti)O<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>	<b>PbO</b>	<b>ZnO</b>	<b>CdO</b>	<b>CoO</b>	<b>Cr<sub>2</sub>O<sub>3</sub></b>	<b>CuO</b>	<b>SiO<sub>2</sub></b>
	White	<10		<10	10-20		>50		<10				20-30
	Yellow	<10		<10	<10		>50		<10				20-30
	Red	<10		<10	<10		>50		<10				20-30
	Green	<10		<10	<10		>50		<10	<10	<10		20-30
	Blue	<10		<10	<10	<10	>50		<10	<10			20-30
	Black	<10		<10	<10		>50		<10		<10	<10	20-30
	Purple	<10		<10	<10	<10	>50		<10	<10			20-30
	Orange	<10		<10	<10		>50		<10				20-30

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<u>T SERIES</u>	COLOURS	M <sub>2</sub> O	MO	B <sub>2</sub> O <sub>3</sub>	(Zr-Ti)O <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	PbO	ZnO	CdO	CoO	Cr <sub>2</sub> O <sub>3</sub>	CuO	SiO <sub>2</sub>
	White	10-20	<10	20-30	10-20	<10		30-50					10-20
	Yellow	10-20	<10	20-30	<10	<10		30-50	<10				10-20
	Red	10-20	<10	20-30	<10	<10		30-50	<10				10-20
	Green	10-20	<10	20-30	<10	<10		30-50		<10	<10		10-20
	Blue	10-20	<10	20-30	<10	<10		30-50		<10			10-20
	Black	10-20	<10	20-30	<10	<10		30-50			<10	<10	10-20
	Purple	10-20	<10	20-30	<10	<10		30-50	<10	<10			10-20
	Orange	10-20	<10	20-30	<10	<10		30-50	<10				10-20

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<b>L SERIES</b>	<b>COLOURS</b>	<b>M<sub>2</sub>O</b>	<b>MO</b>	<b>B<sub>2</sub>O<sub>3</sub></b>	<b>(Zr-Ti)O<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>	<b>PbO</b>	<b>ZnO</b>	<b>CdO</b>	<b>CoO</b>	<b>Cr<sub>2</sub>O<sub>3</sub></b>	<b>CuO</b>	<b>SiO<sub>2</sub></b>
	White	<10		<10	10-20	<10	>50		<10				10-20
	Green	<10		<10	<10	<10	>50		<10	<10	<10		10-20
	Blue	<10		<10	<10	<10	>50		<10	<10			10-20
	Black	<10		<10	<10	<10	>50		<10		<10	<10	10-20

<b>U SERIES</b>	<b>COLOURS</b>	<b>M<sub>2</sub>O</b>	<b>MO</b>	<b>B<sub>2</sub>O<sub>3</sub></b>	<b>(Zr-Ti)O<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub></b>	<b>PbO</b>	<b>ZnO</b>	<b>CdO</b>	<b>CoO</b>	<b>Cr<sub>2</sub>O<sub>3</sub></b>	<b>CuO</b>	<b>SiO<sub>2</sub></b>
	White	10-20	<10	20-30	10-20	<10		30-50					10-20
	Green	10-20	<10	20-30	<10	<10		30-50		<10	<10		10-20
	Blue	10-20	<10	20-30	<10	<10		30-50		<10			10-20
	Black	10-20	<10	20-30	<10	<10		30-50			<10	<10	10-20

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Expansion range:

SERIES	$\alpha$ (50-300)	Tt	Tr	Tir	Trm	Tfe	Tfse
N	75-90	420-450	450-500	520-550	570-600	630-600	670-700
T	85-100						
L	75-90	420-450	450-500	520-550	570-600	630-600	670-700
U	85-100						

Particle size valid for all series:

X10	X50	X90
0,6-1 microns	3-5 microns	10-15 microns

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