



Quad Supplier Specifications for Roll Paper

This document provides direction on Quad's expectations for supplying roll paper to our Magazine/Catalog, Commercial, Direct Mail, Special Interest Publication, and Retail plant locations.

Specific topics include:

- Order Acknowledgements
- Order Specifications
- Shipment Instructions
- Paper Storage
- Paper Performance
- Paper Claims
- Slitter/Rewinder Specifications

Order Acknowledgements

Following Quad's protocol for acknowledging paper orders helps us plan for future warehousing space requirements and placement.

For Paper Purchased by Quad

Acknowledgments on all orders should be emailed to:

paper.acknowledgement@quad.com no later than one business day after the buyer has placed the order.

The following information should be included in detail:

- Quad PO #
- Mill Order #
- CWT price
- Mill location and machine number
- Grade name
- Basis weight (B25x38)
- Web width
- Diameter(s)
- Manufacture date
- Quantity
- Ship date
- Mode of transit
- Planned freight cost
- Core type and diameter
- Last date of change
- Allocation month
- Delivery window
- PPI/Caliper
- Title and Event date if provided by Quad
- Certifications (FSC, PEFC, SFI, etc.)
- Quad/Paper Services will email the purchase order the same business day that the order is placed with the paper supplier.
- Purchase orders will indicate press type.

For Customer Supplied Paper

Customer acknowledgments should be emailed to the individual Quad paper receiving facilities.

At a minimum, Quad prefers notification on:

- Customer Purchase Order
- Mill Order #
- Mill location and machine number
- Grade name
- Basis weight (B25x38)
- Web width
- Diameter(s)
- Manufacture date
- Quantity
- Ship date
- Press date
- Mode of transit
- Core type and diameter
- Delivery date
- PPI/Caliper
- Title and Event date if provided by Quad
- Certifications (FSC, PEFC, SFI, etc.)
- For all offset rolls, it is imperative that the customer supplies press type information to the paper mill, i.e., M3000 (2x6), M3000 (2x8), M1000 (2x4), M110, C500, C700, Gravure, etc. This will be used to determine the minimum and maximum outside diameters.

Order Specifications

These are specifications for any paper coming into the previously mentioned Quad plants. Note that for Quad-purchased paper, orders are placed in net weight requirements. Net weight is calculated as gross weight (header, wrap, white paper, and core) less core weight. Note that for customer-supplied paper, quoted requirements reflect the amount of white paper to be run through press, excluding the weight of wrappers, headers, cores and core plugs. The customer is responsible for supplying adequate amounts of white paper.

Roll Weights

- Roll labels and manifests should list gross, tare and net weights in pounds.
- Tare weight includes core and core plugs.
- Gross weight includes wrapper, header, core and core plugs.

Roll Width

- The exact roll width size is required (+ / - 1/32").

Core Specifications

- All cores are plain high strength fiber.
- Core type should be noted on EDI or packing slip.
- Core plugs are required on all rolls with a core wall thickness of less than 0.660".
- If core wall thickness is greater than 0.660", core plugs will not be required.

- No metal end caps or notches.
- Core width not to exceed paper width, and not less than 1/16" less than paper width.
- Diameter and thickness should be indicated on manifests and EDI.
- Gravure: 6" ID cores required on all gravure rolls. 3" cores subject to approval and a \$1000 fee for chuck change over.
Core size is required to be the same for all orders intended to run within the same job#/event. Mixing of 3" and 6" cores will result in a claimable situation for recovery of downtime due to press stop and additional machine setup.

Basis Weight Tolerance

Overweight paper is not desirable. The target should be from nominal to .25 light. The average basis weight should be as close as possible to nominal basis weight.

For Quad Purchased Paper

- Aggregate basis.
- If the average is overweight, Quad may debit the mill and provide documentation.
- If the average is underweight, the mill will be notified to rectify the underweight issue.
- Quad's basis weight variance calculation will be used in verifying average basis weights. Quad's calculations will supersede mill figures. Quad compares actual impressions to theoretical impressions based upon stated roll weight, basis weight and width of roll. If the actual impressions are less than the theoretical impressions that have been calculated, the paper is considered heavy.
- Quad reserves the right to hold the supplier responsible for individual orders.
- For point/caliper stock in cover and book grades, overall basis weight variation shall have a tolerance of +3/-3% of ordered basis weight.
- Quad will audit basis weight and discuss results with suppliers during quarterly scorecard reviews.

Roll Labels

- Quad requires adherence to the IDEAlliance Guidelines for Paper Roll and Package Labeling Specifications as set forth in IDEAlliance Standard 132-1997, and the North American Roll Identifier IDEAlliance Standard-1995.
- There should be two labels (minimum) with all required information, attached to the roll wrapper by means of an adhesive backing. Each label should have the following information:
 - Grade name and type of paper.
 - Basis weight and roll width.
 - Mill roll number (Barcode mandatory).
 - Publisher name. When purchased by a merchant, the merchant is required to furnish the Publisher's name/order number to the mill.
 - Title and/or purchase order number.
 - Direction of unwind and felt or wire side out.
 - Core type and outside diameter
 - An additional third label may be placed on the topside of the roll.

- Quad requests the number of mill splices stenciled on the roll label.
- All rolls should include an adequate number of individual peel-off labels to meet requirements for plant inventory and consumption controls.
- Roll size and weight information should be in inches and pounds.
- Roll labels, containing the roll identification information that are adhered to roll wrappers, must be front facing and visible to the unloader at all times.

Roll Diameters

Press	Diameter				Max Weight
	Core	Min	Ideal	Max	
Offset					
Up to 26.5" (Custom)	3"	40"	50"	50"	96# / Linear Inch*
Over 25.6" and up to 38" (2x4)	3"	40"	50"	50"	96# / Linear Inch*
Over 38" and up to 57" (2x6)	3"	45"	50"	50"	5,300#
Over 57" and up to 72" (2x8)	3"	45"	50"	50"	8,200#
Lomira — C500 up to 39.5"	3"	45"	50"	50"	5,000#
Lomira — S2000 up to 56"	3"	45"	50"	50"	8,000#
Gravure					
Lomira — up to 96"	3" or 6" **	45"	50"	50"	7,500#
Martinsburg (Caperton Blvd. \Oklahoma City - Up to 97.5"	3" or 6" **	45"	50"	50"	8,800#
Over 97.5" and up to 108"	6"	45"	50"	50"	10,100#

*For example: a 30" roll cannot exceed 2,880#; a 38" roll cannot exceed 3,420#

**For gravure, 6" core diameters are preferred.

Roll Stenciling

- Roll Number Stencils must be on at least one end of the unwrapped roll, but we prefer that both ends be stenciled.
- The size of the stencil and location must be as close to the core as possible, and no more than 10 inches from the core as not to interfere with auto paster detectors.
- Please indicate the roll's unwind direction with an arrow on roll label.

Shipment Specifications

Over/Under Delivery Specifications

For Quad purchased paper, all over shipments on orders greater than 44,000 lbs.* will result in a rejection of the over shipped roll(s).

For orders between:	Tolerance
2,000 to 4,999 lbs.	+/- 20%
5,000 to 9,999 lbs.	+/- 10%
10,000 to 43,999 lbs.	+/- 5%
44,000 lbs. or more*	Not more than, to the nearest roll under

*Once a shipment becomes greater than a truckload

Shipping Records

In order to help ensure that paper is received in a timely manner, as it is shipped, or before, we ask that the paper mill send Quad a copy of the shipment manifest by electronic transmission prepared and transmitted in accordance with the papiNet Delivery Message standard. Roll size and weight information should be specified in inches and pounds.

All electronic transmissions should be directed to Quad's Information Technology Department at (414) 566-6000.

Transportation

Whether paper is shipped via rail or truck, the following equipment and loading requirements must be met for the paper to arrive in good condition. We expect adherence to the requirements, as they will minimize claims among other mutually beneficial outcomes.

Rail Car Loading

- Quad prefers high cube railcars with 8 feet or wider doors and with cushioned underframe.
- Do not bilge load. Load all rolls on end, unless prior approval for loading patterns is given by the receiving department.
- Load rolls of paper using the guidelines prescribed in the Association of American Railroads Pamphlet 39, or other specific loading and bracing methods, which have received approval of the American Railroads Freight and Damage Prevention Division.
- Roll labels, containing the roll information, must be facing/visible to the unloader.

Truck Loading

- No rolls on skids.
- No rolls on refrigerated trailers.
- Container and truck/trailers are to have a minimum door opening of 92 inches. The inside height clearance on all containers must be at least 92 inches. Any containers under 92 inches cannot be unloaded.
- Paper is received at all Quad facilities by appointment only.
- Appointments for each plant are to be made 48 hours in advance Monday through Friday, 7:00 AM through 5:00 PM. Truckloads may be directed to other Quad facilities upon arrival.
- Quad will not be responsible for reconsignment fees for distances of 10 miles or less.
- When emailing for an appointment, the PURCHASE ORDER, Basis Weight, Width, and Brand is required to ensure delivery to the correct facility, and to accommodate the delivery due date, based on appointment availability at each plant location.
- When the carrier emails for an appointment, they will be given an appointment number. This number will be needed for off-loading of roll stock and will expedite unloading.
- No metal strapping. All strapping material should be made of synthetic material to reduce the risk of injury at time of loading and unloading.
- Use of proper dunnage (airbags, risers, etc) is required.
- Roll labels, containing the roll information, must be facing/visible to the unloader.

Delivery Timing

- Due dates for all deliveries will be noted on Quad Purchase Orders, or on the customer PO for customer-supplied paper. Deliveries which arrive early may be subject to prevailing Handling/Storage charges.
- Early delivery charges will not apply to orders less than 45,000 pounds.
- Early delivery charges will apply to orders over 45,000 pounds. Rail demurrage charges may also apply.

Late Deliveries

- Late deliveries will be reviewed by our Purchasing department and paper mills on a case-by-case basis. Deliveries will be considered late if the paper mill fails to meet the mutually agreed upon delivery dates established by paper mill and communicated to our Purchasing department at the time the order was acknowledged.
- Deliveries may be refused if paper shipments are late and received after the job is off press, if no further identifiable use is found for the paper.
- Quad charges a \$150 administrative flat fee per claim for gathering evidence, preparing and filing late paper claims.

Delivery Information

- Deliveries are by appointment only. Appointments are to be made at least 48 hours in advance by emailing the specific receiving facility Monday through Friday, 7:00 AM through 5:00 PM.
- When the carrier emails for an appointment, they will be given an appointment number. This number will be needed for offloading of roll and sheet stock.
- When emailing for an appointment, the Purchase Order, size, basis weight and brand is required to ensure delivery to the correct facility, and to accommodate delivery due date.

Paper Storage

Quad will not charge storage fees for Required Paper that is received within the timelines required for manufacturing. To the extent Quad stores any paper in our facilities outside of these timelines, Client will be subject to a storage charge beginning in the month that marks 30 days following receipt of such paper.

Quad will request disposition instructions for aged paper in Client ownership. If Client fails to provide disposition instructions within 30 days following our written notice, then Quad will have the right to scrap such paper. If long term warehousing is desired by client, a long-term agreement must be reached with prevailing long term storage fee.

If Client decides to modify or transfer paper out of Quad's facility(ies) for any reason, Quad will assess a disposition charge for the warehouse services Quad provides to move and prepare that paper for shipment. This includes paper Quad is instructed to ship or sell.

Paper Performance

Mill Splices

- No more than two mill splices per roll (any diameter).
- No more than 30 mill splices per 100 rolls.
- All mill splices must be clearly marked on roll label and clearly marked on end of roll.
- No mill splices should be within 1 inch of each other.
- No mill splices can be less than 1 inch from outside.
- No mill splices can be less than 3 inches from core.

Web Break Performance

- Quad may debit the following for all mill caused web breaks:

Gravure:	\$1,100
2x4:	\$500
2x6:	\$575
2x8:	\$725
4x6:	\$725
4x8:	\$725
4x10:	\$725
M110:	\$500
Heat set:	\$500
Cold set:	\$500
- **Quad will make reasonable attempts to notify mill technical personnel as problems arise.**
- In cases where mutual agreement is made to run suspect or rejected paper through press, each web break will be claimed for in full with no allowances granted.

Paper Claims

- Notification of transit claims will be filed directly with the originating paper mill. In the cases where paper was shipped from another printer, claim documentation will be forwarded to the papers’ owner. Resolution of the claim is the responsibility of the owner.
- Notification of defective roll claims will be filed directly with the paper supplier. Quad will provide evidence of damages.
- Claims are to be resolved within 21 calendar days from the file date. Roll disposition is required. If disposition is not received within 21 days, Quad reserves the right to scrap the rolls.
- Disputed claims that remain unresolved after 21 calendar days will be forwarded to Quad/Graphics’ Paper Services department for resolution.
- No time limit exists for Quad discovering concealed water damage. We will do our best to report cases as they are discovered.

- Press production claims (see the previous section on paper performance) will be filed directly with the mill. Reimbursement from the paper supplier will be the customer's responsibility.
- Paper troubleshooting services that include sorting, inspection, and labor of suspect performance issues will be billed at \$135 per hour.
- Quad charges a \$150 administrative flat fee per claim for gathering evidence, preparing and filing claims.
- If Client requests a trade in paper ownership, Quad will charge \$15/roll for the administration and relabeling of rolls.
- If Client requires a physical inventory audit, Quad will charge \$135/hour for assisting with counts, reporting, and/or cooperation with internal or external auditors.
- If Client or Client's mill or broker request testing of trial paper, testing is subject to fees for ink, press time, reporting, handling, and administrative time.

Slitter/Rewinder Specifications

The following outlines the specifications for Quad/Graphics' slitting/rewinding services. We operate a 96" Cameron CT-16 Two Drum Slitter/Rewinder.

Maximum Web Width	96"
Minimum Width of Unwind Roll	9"
Maximum Roll Diameter	60"
Maximum Rewind Diameter	60"
Unwind Core Diameters	3" and 6" I.D.
Rewind Core Diameters	3" and 6" I.D.
Minimum Trim Required	1/4"
Maximum No. Of Slits Strips	8
Minimum Width of Slit Strips	12"
Slitting Method / Wrap-around Shear	4000 FPM
Maximum Web Speed	

Roll Wrap System

- Automated Roll Wrapping (accommodates full range of diameters)
- Header Press
- Individual or Multi-pack Wrapping
- Kraft or Stretch Wrapped